

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



ARD/151  
A74

# ARED

USDA

LIBRARY

Economic and Social Research for Rural America

## News

Agriculture and Rural Economy Division  
Economic Research Service  
U.S. Department of Agriculture

Spring 1994



**Farm and Rural Economy  
Branch, page 9**

**Farm Sector Financial Analysis  
Branch, page 12**

**Finance and Development  
Policy Branch, page 18**

**Human Resources and  
Industry Branch, page 24**

**National Economy and History  
Branch, page 28**

# ARED News

---

Spring 1994

---

## Economic and Social Research for Rural America

---

### Contents

ARED Directory .....	3
ARED Reflections .....	4
ARED Publications .....	5
Office of the Director .....	8
Farm and Rural Economy Branch (FRE) .....	9
Farm Sector Financial Analysis Branch (FSFA) .....	12
Finance and Development Policy Branch (FDP) .....	18
Human Resources and Industry Branch (HRI) .....	24
National Economy and History Branch (NEH) .....	28
Index of Reports and Papers .....	33

---

Editor: Jack L. Runyan, 202/219-0932

Typist: Tiffany M. Mills

Photo credits: USDA files





**ARED DIRECTORY**  
**Agriculture and Rural Economy Division**  
**Economic Research Service**  
**U.S. Department of Agriculture**  
**1301 New York Avenue, NW**  
**Washington, DC 20005-4788**  
**(Area code: 202)**

---

**Office of the Director**

Director (acting): <b>Richard Long</b> .....	219-0530
Associate Director (acting): <b>Sara M. Mazie</b> .....	219-0530
Deputy Director for Agriculture: <b>Tom Carlin</b> .....	219-0520
Assistant to the Director for Data Coordination: <b>John Hession</b> .....	219-0340
Executive Editor for <i>Rural Development Perspectives</i> : <b>Linda Ghelfi</b> .....	219-9520
Assistant to the Director (acting): <b>Kay F. Murphy</b> .....	219-0339

**Farm and Rural Economy Branch**

Branch Chief: <b>David Harrington</b> .....	219-0527
Agriculture and Community Linkages Section (acting): <b>Mindy Petrulis</b> .....	219-0525
Farm Structure Section: <b>Leslie Whitener</b> .....	219-0522

**Farm Sector Financial Analysis Branch**

Branch Chief: <b>James Johnson</b> .....	219-0800
Economic Indicators Forecasts Section: <b>Bob McElroy</b> .....	219-0800
Farm Costs and Returns Section: <b>Mitchell Morehart</b> .....	219-0801
Farm Financial Analysis Section: (Vacant) .....	219-0798
Farm Firm and Household Well-Being Section: (Vacant) .....	219-0807
Farm Income Estimation Section: <b>Roger Strickland</b> .....	219-0804

**Finance and Development Policy Branch**

Branch Chief: <b>Patrick Sullivan</b> .....	219-0719
Agricultural Finance Section: <b>Jerome Stam</b> .....	219-0892
Government and Development Policy Section: <b>David Sears</b> .....	219-0544
Rural Finance and Tax Section: <b>Ron Durst</b> .....	219-0897

**Human Resources and Industry Branch**

Branch Chief: <b>David McGranahan</b> .....	219-0540
Population Studies Section: <b>Linda Swanson</b> .....	219-0547
Rural Industry Section: <b>G. Andrew Bernat</b> .....	219-0539
Rural Labor Section: <b>Paul Swaim</b> .....	219-0552

**National Economy and History Branch**

Branch Chief (acting): <b>Douglas Bowers</b> .....	219-0780
Agriculture and Rural History Section: <b>Douglas Bowers</b> .....	219-0787
Macroeconomics Section (acting): <b>Mark Denbaly</b> .....	219-0782
National Aggregate Analysis Section: <b>Gerald Schluter</b> .....	219-0785

# REFLECTIONS FROM THE OFFICE OF THE DIRECTOR

---

By **Richard W. Long**, Acting ARED Division Director

May 1994

Returning from 3 years overseas I have found almost everything in ERS in transition. The Administrator and the Assistant Secretary for Economics are "acting," as I am. ERS will soon be part of a new organization in a reorganized Department. It will report to a new assistant secretary, whose name has not been sent to the Senate for confirmation at this writing.

The public policy agenda is in transition. Preparations are under way for next year's Farm Bill, the vehicle for the new Administration's major initiatives in rural development as well as agricultural policy. The Congress which will consider those initiatives has not yet been elected, but we know there will be important changes. In the House, less than a third of the members of the Agriculture Committee will have been in Congress when the previous Farm Bill was considered and Representatives Whitten and Natcher, key leaders for many years, will be gone.

Our division is in transition, too. Very suddenly, at the beginning of April, three long-time Division employees with a combined total of over 100 years of U.S. Government service, retired. They were among the first to take advantage of the "buyout" program which Secretary Espy, among others, had requested from Congress to help shrink USDA with a minimum of disruption. Paul Flaim, Duane Hacklander, and Fred Hines have all contributed significantly to our work, in different ways, and are already missed. Kay Murphy, has returned to ERS to become the Division's administrative officer on detail from EMS. Tim Baxter and Alberto Jerardo have come to the division along with its expanded macro responsibilities. Alma Young has also transferred to our Human Resources and Industry Branch from ATAD.

ERS itself is in transition. Many people are involved in planning for a smaller, but, we hope, more efficient Agency, one better focused to serve policy makers in all of USDA's mission areas. Budget cuts would not be my preferred instrument for change, but they are a powerful inducement to make difficult choices.

Most people seem to be thriving in the swirl of transition. Morale in the division seems good. I'm pleased at how positively most are approaching the task of redesigning ERS. One dividend I've seen already is the emergence of cross-divisional collaboration, at least at the level of the directors, associates, and branch chiefs.

Stimulating as all this change is, there is something to be said for a stable, tranquil atmosphere in which to work. Personally, I wouldn't mind a quiet patch now and then. Still, it's good to be back, working with old colleagues again, and I look forward to getting better acquainted with the many people in the division who are new, or seem so to me.

# ARED PUBLICATIONS

---

## Rural Conditions and Trends

---

### In This Issue

#### Summer 1993 (Vol. 4, No. 2)

Overview - "Rural Employment Recovering Slowly; Earnings Gap Widens" by **Linda Gheffl** (OD). Growth in both rural and urban employment since the 1990-91 recession has been slow. Although rural employment and earnings were less affected by this recession than the 1980-82 recessions, rural earnings per job continue to lag urban earnings. The ratio of rural to urban nonfarm earnings fell below its 1969 level in 1987 and has continued to fall since then.

National Economic Conditions - "Slow Growth Continues" by **Dave Torgerson** (NEH). Real gross domestic product growth was modest during the first 6 months of 1993. The unemployment rate remained largely unchanged.

Employment - "Moderate, Uneven Gains for Rural Employment" by **Paul Swalm** (HRI). Rural employment grew 1.3 percent between the second quarters of 1992 and 1993, essentially equaling the 1.2 percent urban gain. The rebound in employment continued to be unusually slow for an economic recovery period and unevenly distributed across different regions and industrial sectors.

Unemployment - "Decline in Rural Unemployment Stalls in the Second Quarter of 1993" by **Elizabeth Dagata** (HRI). After falling during the two previous quarters, unemployment in rural and urban areas remained stable during the second quarter of 1993. Rural areas in the West had the highest unemployment rates and fastest growth in unemployment during 1992. Unemployment in rural areas of other regions was lower and remained relatively unchanged.

Industry - "Rural Jobs Withstood the 1990-91 Recession Better than Urban Jobs" by **Jim Miller** (HRI). The 1990-91 recession accelerated the loss of jobs in manufacturing and other goods-producing industries. Yet, rural losses of manufacturing jobs were

disproportionately small compared with urban losses.

Earnings - "Effects of 1990-91 Recession on Rural Earnings Were Comparatively Mild" by **Mike Lahr** (formerly with HRI). Rural earnings per nonfarm job declined more than urban earnings in all regions and private industries during 1989-91. However, the decline in rural earnings was much more moderate than during earlier recessions.

#### Fall 1993 (Vol. 4, No. 3)

This is a special, 102-page issue of RCaT analyzing change in nonmetro areas during the 1980's. Most data are from the 1970, 1980, and 1990 Censuses of Population and Housing.

Overview - "Nonmetro Renaissance Evaporated During the 1980's"

County Classifications - "Metro-Nonmetro Distinction Primary; Finer Classifications Add Depth"

Population - "Nonmetro Population Grew Slowly During the 1980's"

"Blacks Maintain Small Nonmetro Growth; One in Four New Nonmetro Residents Is Hispanic"

"Shortage of Young Adults in Nonmetro Areas Greater Than Ever"

"Nonmetro Outmigration Exceeded Immigration During the 1980's"

"Fertility Rates Remain Somewhat Higher in Nonmetro Areas"

"Fewer Nonmetro Children Live With Both Parents"

"Household Formation Continues to Outpace Population Growth"

Education - "Nonmetro College Completion Rates Fall Further Behind Metro"

Employment - "Nonmetro Labor Force Size and Participation Rate Up Moderately"



**"Nonmetro Areas Trail in Growth of High-Income Occupations"**

**"Service Industries Dominate Nonmetro Employment Growth"**

**"Commuting Times Increasing, but Shorter for Nonmetro Workers"**

**Income - "Nonmetro Real Family Income Stagnated During the 1980's"**

**Poverty - "Nonmetro Poverty Rate Inches Back Up"**

**"Families With Children and Headed by Women Fare Worst"**

**Housing - "Nonmetro Housing Growth Slows; Vacancy Rate Still Double Metro Rate"**

**"Nonmetro Access to Complete Plumbing Increases"**

**"Nonmetro Owner Occupancy Still Much Higher than Metro"**

**"Mobile Homes Have Been the Largest Source of Growth in Nonmetro Homeownership for Two Decades"**

#### **Appendix: Definitions**

Appendix Tables - 31 tables relating to the topics addressed in the articles. All tables present data for the United States, large and small metro areas, and nonmetro areas adjacent to large metro areas, adjacent to small metro areas, nonadjacent with cities of 10,000 or more residents, and nonadjacent without a city that large. Those levels of urbanization are also shown for each Census region. And, data on nonmetro farming-dependent, mining-dependent, manufacturing-dependent, persistent low-income, and retirement-destination counties are also included in each appendix table.

The articles were written by **Linda Ghelfi** (OD) [overview, classification, and housing articles], **John Cromartie** (HRI) [all population articles], **Mike Lahr** (formerly with HRI) [employment articles on commuting and industry and all income and poverty articles], and **Tim Parker** (HRI) [education article and employment articles on labor force participation and occupation].

#### **Winter 1993/94 (Vol. 4, No. 4)**

Overview - "Rural and Urban Economies Benefit from Year-End Surge" by **Linda Ghelfi** (OD). The national economy ended 1993 on a high note, and both rural and urban employment increased. Rural employment dropped in the fourth quarter of 1993, but is still higher than before the recession. Special articles investigate the rural implications of employment projections to 2005, the income status of farm entrepreneurs, and the weekly earnings of hired farmworkers.

National Economic Conditions - "Growth to Turn Strong in 1994; Inflation Stays Low" by **Dave Torgerson** (NEH). Real gross domestic product growth surged in the last quarter of 1993 making for 3.8-percent growth in the second half of the year, following only 2.3-percent growth during the first half. The December unemployment rate came in at 6.4 percent. Consumer prices rose at a 2.7-percent rate in the second half of 1993. The outlook for 1994 is for above 3-percent growth with below 3-percent inflation.

National Economy Links to Rural Areas - "Service Industries Expected to Dominate 1992-2005" by **Karen Hamrick** (NEH). Rural employment is more concentrated than urban employment in industries and occupations expected to decline or grow slowly through 2005. However, a large share of rural employment is still in occupations expecting high growth.

Employment - "Rural Employment Grows Moderately Throughout 1993" by **Tim Parker** (HRI). Rural employment increased moderately in 1993, at about the same rate as in 1992. Urban employment, however, stagnated during 1992 and then accelerated during 1993. By late 1993, rural and urban job growth rates were about equal. Rural employment grew strongly for younger workers and declined for Blacks.

Unemployment - "Rural Unemployment Falls Throughout 1993" by **Paul Swalm** (HRI). The fourth quarter unemployment rate was 6.3 percent, down from 6.9 percent a year earlier but still above the 5.7 percent rural unemployment rate just prior to the 1990-91 recession. Unemployment rates for rural minorities and youths were significantly higher than for whites and older workers.



**The Rural Workforce - "Farm Entrepreneurs Depended on Both Farm Self-Employment and Wage and Salary Incomes in 1992"** by **Margaret Butler (HRI)**. Farm operators and managers had lower average income than those farm entrepreneurs who received farm self-employment income but reported a nonfarm occupation. The median income of farm operators and managers was only 64 percent of that for farm self-employment income recipients.

**"Hired Farmworker Earnings Ranked Near the Bottom of Major Occupation Groups in 1992"** by **Vic Oliveira (FRE)**. Hired farmworkers provide necessary labor during critical agricultural production periods, such as planting and harvesting. Despite their importance to agriculture, hired farmworkers are one of the most economically

disadvantaged occupational groups, experiencing seasonal employment, low earnings, and limited options.

#### Notice

Beginning with the Spring 1994 issue, RCaT will be published 2 times a year. Subscription prices for 1 year will be \$13 for U.S. addresses and \$16.25 for addresses outside the United States. To start a subscription, send a check or money order made payable to ERS-NASS to ERS-NASS, 341 Victory Drive, Herndon, VA 22070 or call 1-800-999-6779 and charge it to your VISA or MasterCard.

Single issues of the Fall special Census issue are also available for \$12 (\$15 to foreign addresses) from ERS-NASS. Ask for RCA 114.



# OFFICE OF THE DIRECTOR

---

## Papers Presented and Meetings Attended

**Tom Rowley, Sara Mazle, and Dick Long** participated in the quarterly meeting of State Rural Development Council (SRDC) Executive Directors in Greenwood, Mississippi in January. The primary focus of the meeting was on "strategic thinking and acting." Facilitated sessions were used to help SRDC leaders think about what it means for their organizations to be strategic and what that requires of them.

At that meeting, Rowley introduced a new effort designed to involve the Regional Rural Development Centers in the National Rural Development Partnership (NRDP). The Centers will work with SRDCs to identify, recruit, and involve "information liaisons" in the work of the Councils. The information liaisons will help SRDCs obtain and use information which is critical for strategic decision making. Rowley will manage the effort on behalf of ERS and the NRDP.

**Tom Rowley and Dave Sears (FDP)**, along with Ken Deavers (OA) and **Sara Mazle**, attended the annual fall meeting of the State Rural Development Councils in Santa Fe in October. The focus of the meeting was on providing opportunities for the Councils to share ideas and experiences on a variety of substantive and process issues.

**Tom Rowley** helped organize a session examining international trade and rural areas of the High Plains. The session was held at Kansas State University in November. Ken Deavers (OA) made a presentation at the session, which was carried via satellite to SRDCs in several states. Work on this topic continues, with an environmental scan being conducted through an ERS cooperative agreement. The scan will look for potential roles for the SRDCs to play in enhancing the international trade potential and economic development effects of that trade for rural areas.

In March, **Tom Rowley** gave a presentation on the rural economy and prospects for development at a conference of the National Coalition for Heritage Areas. Participants in the conference were interested in ways that

heritage areas can be used for rural development.

**Sara Mazle** made a presentation on the rural economy in a global context at the annual meeting of the Illinois Private/Public Partnership for Rural Community Development or "Rural Partners" in Springfield, Missouri on March 16th. Rural Partners has recently become part of the National Rural Development Partnership as the Illinois Rural Development Council.

Also in March, **Tom Rowley** participated in a meeting of the North Carolina State Rural Development Council's executive committee in Raleigh.

**Tom Rowley and Sara Mazle** met in Chicago with representatives of the National Rural Development Partnership (NRDP) to discuss the plans for improving the diversity of State Rural Development Councils and to work on the design of the upcoming national conference in April.

**Tom Rowley** participated in the strategic planning sessions of the Colorado SRDC.

**Tom Rowley** met with the Nebraska SRDC to discuss progress and future work on their study of the cumulative impacts of regulations on limited-capacity rural areas.

**Tom Rowley** helped to plan and participated in a strategic planning session designed to improve productivity in the secondary wood products industry of Maine. The session, sponsored and planned by the Maine SRDC, included members of the industry, academia, and business assistance organizations. Paul Sommers of the Northwest Policy Center was brought into the project to provide information from a similar endeavor in the Pacific Northwest. The meeting was held in Bethel, Maine in January.

**Dave Sears (FDP), Sara Mazle, and Tom Rowley** participated in a meeting that resulted in the formation of a new organization-- "Crossroads: An Assembly for Rural America." The meeting took place in Baltimore and included representatives from the rural development research and practice fields. The purpose of the organization is to bring the two



fields closer together for the benefit of each. **Sears** is serving as a member of the executive committee; **Mazle and Rowley** are members of the steering committee.

#### Personnel News

**Paul J. Flaim**, Assistant to the Director, retired

after 41 years of service. Paul plans to divide his time between his home in Arlington and his beach house in Reedville, VA. **Kay Murphy** has been detailed as Assistant to the Director, from EMS.

## FARM AND RURAL ECONOMY BRANCH

---

### Branch Office

**David Harrington** has recently been requested to present three invited papers. The first, "Trade, Policy, and Risk Management: Radical New Policies for the 1995 Farm Bill?", was presented at the Department of Agricultural Economics, University of Nebraska, Lincoln, Nebraska, February 11, 1994. The second, "Revenue Assurance: Radical New Policies in 1995" was presented to the National Agricultural Cost of Production Standards Review Board on February 12, 1994. The third, will be presented to a meeting of agricultural economists of the Federal Reserve System, on June 1, 1994, is titled "Guaranteed Revenue Proposals for the 1995 Farm Bill"

The common themes that run through each are comparisons of two revenue guarantee proposals for the 1995 Farm Bill. He first lists the reasons why many people are expecting radical new directions for commodity policy in 1995. Then he compares and contrasts two proposals for revenue guarantees, currently the most discussed new directions for 1995. The first is an insurance-based plan he discussed in an article co-authored with Professor Otto Doering of Purdue University Department of Agricultural Economics, "Agricultural Policy Reform: A Proposal", published in *CHOICES* Magazine, first quarter 1993. The second is a "revenue assurance" plan developed by the Iowa Farm Bill Study Team and published in December 1993. The Iowa Farm Bill Study Team is composed of representatives of all major farm organizations in Iowa. Both proposals seek to combine current commodity programs, crop insurance, and disaster payments to focus more on risk management, reduce Government budgetary exposure, and reduce regulatory burdens on farmers and linked industries.

The Harrington-Doering proposal would pay out indemnities if either a producer's realized yield for a covered commodity fell below a specified percentage of his/her long term moving average yield; or the regional average market price fell below a specified percentage of the long term moving average market price, indexed to the present for changes in input prices. If the coverage levels are selected correctly the program would be entirely market oriented, in that producer incentive prices could be no higher than the larger of: (1) the current expected market price or (2) the long term average of market prices. Thus, the Harrington-Doering proposal would provide producers with virtually certain forward planning prices, as well as a guaranteed minimum annual revenue for covered crops. Both the yield insurance and the price insurance funds of the proposal be actuarially sound and self financing in the long run, hence Government budgetary exposure could be reduced to as low as zero net cost, and the program could even be privatized, if that were thought desirable.

The Iowa Farm Bill Study Team proposal is assurance-based, and would pay revenue deficiency payments only if the producer's realized revenue (realized yield *times* a regional market price) fell below specified percentage of his/her short term moving average revenue. Because the proposal combines of both yield and price protection in one revenue assurance fund, payouts would be less frequent and smaller for producers. The usually strong negative correlation of yields with prices in major production areas limits the effectiveness of the program in those areas. Fringe production areas with more variable yields and less negative correlations of yields and prices would receive greater benefits. Also by combining both yield and price protection into a revenue guarantee, the

program could no longer be made actuarially sound or insurance-based. Accordingly the Iowa plan envisions continued Government funding of revenue assurance and maintenance of current loan and storage programs.

### Personnel News

**Fred K. Hines** retired April 15, 1994 after serving 29 years with ERS. Fred had been the Leader of the Agriculture and Community Linkages Section from its formation in 1985 to his retirement. Fred and his section contributed a regional economics perspective to many outstanding ERS projects and publications over the years, including: the ERS typology of counties, type of farming areas, income and employment classifications of counties, and IMPLAN analyses of effects of economic and policy shocks on local areas. Fred will continue to live on and operate his farm in Frederick County, Maryland. Fred holds Bachelors, Masters, and Ph.D. degrees from Oklahoma State University.

**Douglas A. Rhoades**, formerly Branch Office Manager of the Farm and Rural Economy Branch, accepted a position as economist in the National Economics and History Branch. He will be working in the Macroeconomics Section headed by Mark Denbaly. Doug holds a BS from George Mason University.

## Farm Structure Section

### Publications

*A Review of Farm Accident Data Sources and Research*, by **Jack L. Runyan**, BLA 125, examines national sources of farm accident data and reviews selected farm safety studies on the nature and causes of farm injuries and illnesses, health and safety of youth, farm safety education, and methods of data collection.

*A Summary of the Worker Protection Standard for Agricultural Pesticides*, by **Jack L. Runyan**, AIB 680, summarizes the responsibilities that employers of farm workers will have under the new standards issued by the U.S. Environmental Protection Agency.

*Hired Farm Labor Use on Fruit, Vegetable, and*

*Horticultural Specialty Farms* (AER 678) by **Victor Oliveira**, Anne Effland (NEH), **Jack Runyan**, and Shannon Hamm (Commodity Economics Division) was published in December. Fruit, vegetable, and horticultural specialty (FVH) farms are the largest users of hired and contract labor on a per-farm basis. Because of the unique nature of FVH production, the use of labor on FVH farms differs markedly from that on other types of farms. FVH requires a large number of workers for short, intermittent periods during critical planting and harvesting seasons. Migrant farmworkers and undocumented foreign workers are most often associated with seasonal hand-harvest jobs in the FVH sector. The use of contract labor is prevalent on fruit and vegetable farms as well. Factors such as future production and consumer demand trends, continued mechanization of FVH production, foreign competition and international trade, immigration reform, and changes in Federal laws, regulations, and programs affecting farm labor could have important implications on the adequacy of farm labor supply on FVH farms.

### Papers Presented and Meetings Attended

**Alan Bird** has extended his work on structural adjustments in agriculture to produce a paper entitled, "Restructuring U.S. Agriculture: Implications for Rural Education and Other Community Services." He expects to offer this paper at an international conference on "Issues Affecting Rural Communities," to be held at Townsville, Australia in July. The conference is convened by the Rural Education Research and Development Centre, James Cook University of North Queensland. The paper will be printed in the Conference Proceedings. An abstract is as follows:

Restructuring agriculture ("neoliberalization") enhances its linkage to the general economy through concentration and integration of production and marketing, and labor force adjustments. Jobs in agriculture for most adults and youth thus parallel job types in the general economy, so that all workers and students need to upgrade cognitive skills in literacy and numeracy, and enhance their social and cultural orientation to work. Rural obstacles include isolation, and a population that, compared to urban residents, has less education, more low-income workers, poorer



public support for education, and fewer local jobs. An implied successful strategy would forge national or regional linkages with rural education and other services. Adequate linkage of some isolated residents may require their relocation to distant "suburbs," new communities from which they would commute to both farm and other jobs.

**Leslie Whitener** and **Vic Oliveira** attended the first meeting of the Interagency Task Force on Farmworker Population data organized by the U.S. Department of Labor (DOL). Under the Job Training Partnership Act, DOL will allocate \$80 million for a job training and placement program for migrant and seasonal farmworkers in fiscal year 1995. DOL currently uses the 1980 Census of Population to allocate program funds. The task force has been convened to explore alternative methods of measuring the eligible farmworker population and to develop the most appropriate methodology for allocating funds by State for these programs. The task force will provide DOL with a report containing their recommendations.

In March, **Leslie Whitener** addressed participants of the Nebraska LEAD Program at a meeting in Washington, D.C. Each year, the Nebraska Agricultural Leadership Council selects 30 Nebraska residents involved in agricultural and agribusiness occupations to participate in a series of seminars on local, state, and national agricultural issues, both here and abroad. Leslie talked about farm structure issues in the United States and Nebraska and showed the ERS video tape, "The American Harvest." Other USDA speakers talked about environmental issues, alternative agriculture, NAFTA, GATT, FmHA Programs, and USDA reorganization.

**Leslie Whitener** and **Vic Oliveira** are currently working on a project to identify issues relating to the effects of the North American Free Trade Agreement (NAFTA) on U.S. farm labor. NAFTA is generally expected to benefit U.S. agriculture by providing increased opportunities for export growth through the elimination of trade barriers. However, U.S. production of some labor-intensive commodities will likely contract somewhat under the terms of NAFTA despite offsetting gains from increased exports of fresh vegetables and deciduous fruits to Mexico. Leslie and Vic's work will explore the potential

effects of NAFTA on the U.S. farm labor market and identify those areas of the country most likely to be affected by changing production patterns. Specific issues to be addressed include the effects of NAFTA on U.S. farm labor supply, demand, and wages and on Mexico-United States migration patterns.

## Agriculture and Community Linkages Section

---

### Research and Analysis

**Alex Majchrowicz** is developing a paper that examines 200 nonmetro counties--the 100 fastest growing and 100 most quickly declining counties based on change in employment during the 1980's. A detailed county-level analysis of industries that have gained or lost jobs indicate changes in the industrial structure of these nonmetro areas and provide insight to the rural development successes, and failures, of specific counties. The paper has been accepted for presentation at the 1994 Midcontinent Regional Science Association meeting in June.

### Publications

**Alex Majchrowicz** and **Jackie Salsgiver** continued their on-going analysis of employment in farm and farm-related industries. This sector includes industries that not only produce crops and livestock but also those that supply farm inputs, process and market farm products, and sell farm goods to consumers. As part of their work, they published AIB 686, *U.S. Farm and Farm-Related Employment in 1990: A Significant Source of Jobs in Many Areas*. Farm and farm-related industries provided over 21 million jobs, or 15.7 percent of U.S. employment, in 1990. Farm production jobs, the total of farm proprietors and wage and salary workers, accounted for less than 3 percent of total employment. Farm and farm-related industries accounted for nearly 30 percent of the Northern Plains' total nonmetro employment, with about half the jobs in farm production. New in AIB 686 was the revision of industries classified as farm and farm-related based on 1982 U.S. interindustry linkages, the most recent detailed data on the structure of the national economy.

**Alex Majchrowicz** also had an article published in the *FoodReview*, "Population Growth and New Marketing Concepts Fuel Job Growth for the Retail Food Industry". Appearing in the Spotlight on the Food System section, Alex's article indicated that retail food establishments provided more than 3.5 million jobs in 1990, up 62 percent since 1975. These retail sales jobs include wage and salary employees who work in large grocery stores as well as the self-employed that operate mom-and-pop style shops. These workers complete the linkage between farmers, processors, and consumers.

### Briefings and Miscellaneous

**Alex and Mindy Petrulls** have agreed to participate in an organized symposium at the 1994 AAEA annual meeting. The symposium, organized by Joan Fulton and Dana Hoag of Colorado State University, is titled "Agriculture's Impact on the Economy: A Survey of State Reports". Alex and Mindy will prepare information that identifies the USDA role in developing many of the State reports. Employment data compiled by USDA combine several sources of federal information and allow USDA to estimate the importance of both farm and farm-related employment at the county, State, region, and national level.

Additionally, USDA is currently estimating multipliers for subsectors of the farm industry in various areas of the Nation. These multipliers should provide further insights to the complexity of measuring the importance of the farm sector across the Nation.

**Dennis Brown** successfully defended his doctoral dissertation last December, and received a Ph.D. in Geography from the University of Maryland (College Park) in May. Dennis' thesis focuses on the influence of the local geographic environment in determining the outcome of labor union certification elections in the industrial machinery and equipment sector. The influence of specific geographic and structural factors in the local environment was tested through logit regression. The results showed that unions win more elections in counties where a small proportion of the women work, in work units that are smaller, and when the official closing of the election is delayed. Faced with future organizing efforts, the study has implications for unions because the results suggest that some counties, or work units, offer greater chances of success than others. As a result, unions may be able to more effectively concentrate limited resources in areas having the greatest potential for yielding electoral victories.

## FARM SECTOR FINANCIAL ANALYSIS BRANCH

### A View From the Branch

by **James Johnson**, Branch Chief

During the recent months we have focused on three major activities. One was communicating the Branch's income, finance, and costs and returns estimation activities to data users. A second was conducting training exercises for survey schools and groups of international program cooperators. Redesigning the Branch's data collection and estimation program to reflect budgetary and respondent burden pressures was the third activity.

Each year, under the auspices of NASS, ERS and other agencies, USDA conducts a series of data user meetings to give users of our data an opportunity to express their opinions about the data that we provide for public use.

Although data users can comment on and question any aspect of USDA data, USDA rotates the focus of prepared presentations from crop, to livestock, specialty commodities, and economic statistics on a four year cycle. This year the focus was on USDA's economic statistics, including farm and household income, assets, debts, measures of financial performance, and costs and returns. Comments or questions from data users ranged from inquiries about concepts underlying a particular data series to the frequency and level of disaggregation of published data. Since ERS is the steward of primary economic survey data collected from farm businesses and households, questions also rose about survey design and how data may be accessed for use in academic research. A Proceedings volume from these meetings will be available in late Spring.



Training schools for statisticians and enumerators who conduct our Farm Costs and Returns Survey (FCRS) were held in late January and early February so that field work could be completed by late March. The purpose of these schools is to help the people collecting our data understand each survey question, why it is being asked of farmers, and how the data will be used. Our goals are to standardize how questions are asked nationwide and to prepare enumerators to respond to questions that farmers may have about our estimates and how the data are to be used.

We were host to two international groups -- economists and statisticians from Egypt, and a group from Poland's Institute of Agricultural Economics and Ministry of Agriculture. The group from Egypt focused on the concepts and procedures that USDA uses to develop estimates of income and value-added, assets, and liabilities for the U.S. farm sector. They were also interested in our working relationship with the Bureau of Economic Analysis (BEA) and how our estimates of farm income get incorporated into BEA's estimates of Gross Domestic Product and Personal Income for the U.S. economy. The group from Poland came as a result of the Branch's involvement in ERS' Eastern Europe project. An aim of this project is to assist Eastern European countries in developing enhanced data, staff and policy analysis capabilities. The branch and staff from NASS are working with economists and statisticians from Poland to design a survey program from the ground up, beginning with work to identify lists of farmers from which a sample can be drawn. The goal will be to develop estimates of business and household income for Polish farm families comparable to those that can be developed for U.S. farm families using the FCRS.

Budgetary pressures confronting the agency necessitated redesigning our survey and estimates program. For the 1993 calendar year, the FCRS sample size was reduced from its usual level of 21,000 contacts to 14,500 contacts. The smaller initial sample required that we reviewed regional allocations of sample contacts, make field visits, and undertake other efforts to increase the proportion of usable contacts. These efforts were made to increase the possibility of ending the survey with statistically reliable data for types or sizes of farms or regions of the country. Normally, a little over one-half of initial samples become fully enumerated, correctly coded

questionnaires deemed usable in our estimates program. In the April survey usable questionnaires were collected from 56 percent of the original sample. Responses from the April survey are fairly evenly spread nationwide, indicating that regional farm type and size estimates should be obtainable. We have not, at this time, determined how much the 1993 data may be disaggregated within regions or by size and type of farming operation. For the 1994 survey we are reviewing the design of the survey questionnaire in order to tighten it and shorten the interview length. If successful, we may be able to obtain a larger sample from a reduced pool of survey funds while addressing concerns about respondent burden. In addition to the Branch's annual reports, the FCRS now provides the data used to prepare the annual report to the Congress on the status of the family farm. To enhance the survey's usefulness for this purpose, data will be collected on activities undertaken and decisions made by farm operator households in managing the farm and ranch operations, types and level of household expenditures, allocations of labor between farm and non-farm jobs, attributes of farmers and their households, and linkages that exist between farmers, their communities, and rural economies.

#### Personnel News

Duane Hacklander, Leader of the Farm Financial Analysis Section, decided to retire after 30 plus years with ERS. Duane spent the last seven of those years leading efforts to review the concepts and data used in preparing estimates of the balance sheet of the U.S. farm sector. Duane's leadership contributed to the considerable progress made in improving the quality of the estimates and in providing a wider variety of financial indicators. For the first time, ERS has a conceptually sound set of financial ratios prepared for the farm sector and for each State dating from the 1960's. Forecasts are prepared that are consistent with the annual estimates. Dwelling and land values are prepared using concepts consistent with the National Income and Product Accounts. Estimation activities are manageable on a personal computer! These and other achievements too numerous to list are commendable. Roger Strickland has assumed the role of acting Leader for the section. Questions about the balance sheet

may be directed to Roger or to members of the Financial Analysis Section.

## Economic Indicators Forecasts Section

---

### Publications

**Bob McElroy** published the Farm Income Outlook sections of the December *Agricultural Income and Finance Situation and Outlook* (AIS). The December issue is traditionally the first release of the coming year's forecasts for farm income, receipts, and expenses. Of particular interest in the December issue was the effects of the floods and drought on both 1993 and 1994 incomes. The next issue of AIS (formerly the AFO) will be released June 2.

### Papers Presented and Meetings Attended

On March 25 **Linda Farmer** and **Chris McGath**, Farm Income Estimation Section, presented the farm income and farm operator household accounts to participants in the Bureau of Economic Analysis's Foreign Training Program. The training program educates foreign students in national income accounting techniques. Linda and Chris discussed the definitions, concepts, components, and data sources used in USDA farm income accounts and addressed the history and productivity of the agricultural sector. **Bob Dubman** and **Cheryl Steele**, Farm Income Estimation section, also attended.

**Charles Dodson** presented the 1994 Farm Income Outlook at USDA's annual Outlook Conference.

**Charles** also presented "FCS Non-accrual Loans--Farm Financial Conditions or Jurisdictional Laws?" at the February meeting of the Southern Agricultural Economics Association in Nashville. He also presented a poster (coauthored with **Bob Dubman** and **Bob McElroy**) on income multipliers that were estimated with the ERS Farm Income Forecasting Model.

**Bob McElroy** hosted eight economists from the Polish Institute of Agriculture and Food Economics in March. The Polish team was meeting with the Branch to study ERS' financial estimation methods and get hands-on

training in SAS using the Farm Costs and Returns Survey. Bob will probably go to Poland this summer to follow-up on a project of surveying Polish farmers for financial information.

## Farm Firm and Household Well-Being Section

---

### Research and Analysis

**Bob Hoppe** is working on the second draft of *Farm Operator Household Characteristics from Two Sources: The Farm Costs and Returns Survey and the Current Population Survey*. Both surveys are used to examine the characteristics of farm operator households. Unfortunately, the two surveys often appear to provide contradictory information. This report adjusts data from the two surveys to make them more comparable, examines the remaining differences between the two surveys, and suggests when one or the other of the surveys may be preferable.

**Janet Perry** and **Bob Hoppe** are completing their work on the updated *Economic Well-Being of Farm Operator Households, 1991-92*. This research follows up on work published last year when farm households were analyzed for the period 1988-90. Data for 1991 and 1992 are now available and new FCRS methods more fully represent all U.S. farms and ranches; previously there was under-representation of small operations. The report is expected to be released later in the summer.

### Publications

**Bob Hoppe** authored "Farm Business and Household Characteristics Vary by County Type," in the December, 1994 *Agricultural Income and Finance Situation and Outlook*. Bob's research shows that while the number of counties economically dependent on farming has declined over the years, agriculture has not disappeared from most counties that are no longer farming-dependent. Farming is still significant in many of those counties. The article presents three groups of counties based on each county's share of local earnings from farming and the size of its local farm sector. Understanding the similarities and differences among the three county groups should be useful when devising measures to help farm-



operator households and their communities.

In the next RDP, **Janet Perry** will have 1) a review of *Kill the Cowboy*, a book on the debate over ranchers' use of public lands, and 2) a descriptive announcement of the recent publication of *Size, Structure, and the Changing Face of American Agriculture*.

#### Papers Presented and Meetings Attended

**Janet Perry** presented the 1994 outlook for farm operator households at USDA's annual Outlook Conference. This marked the first time that the household perspective had been featured at the Conference.

**Janet** was also a featured presenter at the January Farm Costs and Returns Survey training school in Phoenix. In March Janet worked with the delegation from the Polish Institute of Agriculture and Food Economics who spent 2 weeks with the Branch studying ERS methodology for analyzing agricultural finance. As part of the joint Poland/ERS/NASS project to develop a set of financial indicators for the Polish agricultural economy progresses, Janet will probably visit the Institute in Warsaw to assist in questionnaire design and data analysis.

**Faqlr Bagl** presented a paper entitled "Wealth Distribution Among U.S. Farm Households" at the 20th annual convention of the Eastern Economics Association held in Boston, March 18-20.

Although the winter weather cancelled **Janet Perry's** personal appearance at the March meeting of the Decision Sciences Institute in Williamsburg, VA, she was there by FAX as a reviewer for one of the sessions.

### **Farm Income Estimation Section**

---

#### Publications

*Ranking of States and Commodities by Cash Receipts, 1992* was released in December.

*Economic Indicators of the Farm Sector: National Financial Summary, 1993* and *Economic Indicators of the Farm Sector: State Financial Summary, 1993* were released in January.

**Charles Barnard** authored a Special Article for the December 1993 issue of *AIF Situation and Outlook*. The article, entitled "Agricultural Adaptation to Urban Influence in U.S. Metro Counties", used FCRS data. Metro counties produce approximately one-third of the value of U.S. agricultural production. The study demonstrated that the production and financial characteristics of metro agriculture are distinctly different from nonmetro agriculture, in large part due to the larger percentages of small, residential-type farms in metro counties. The study also showed that the more business-oriented farms in metro areas are (on average) larger businesses than are their counterparts in nonmetro counties.

#### Papers Presented and Meetings Attended

**Ken Erickson** met February 28 - March 4 with Dr. Richard Weldon and Dr. Charles Moss, University of Florida-Gainesville, to continue their work on several agricultural finance papers, including work on net value added by region, 1960-1992, and on forecasting farm financial conditions.

**Ken** also represented the Agency at the USDA-1890's Schools Conference at the University of Maryland-Eastern Shore at Princess Anne, Maryland, April 24-26.

#### Briefings and Miscellaneous

**Bob Williams** and **Bob Dubman** are providing leadership to the Agency's volunteers participating in the Christmas in April project to clean up and repair a house for a needy family.

#### Personnel News

**Bob Dubman** joined the Section with responsibilities for estimates and research related to farm related income. He also coordinates the financial estimates staffs crucial relationships with the NASS state offices.

### Research and Analysis

**Gerald Whittaker** is collaborating with Professor Rolf Färe, Southern Illinois University, on the use of Data Envelopment Analysis for the analysis of efficiency. One study which is under review is the first application of DEA methods to the analysis of production with intermediate products. Current research extends the method to the measurement of efficiency through time.

**Mitchell Morehart** is collaborating with Dr. Harry Kaiser of Cornell University to study regional similarities and differences among the top dairy producers. The analysis was based on the 1989 FCRS dairy cost of production version. Top dairy farmers were defined in three ways (1) highest returns to capital and management, (2) lowest total cash costs, and (3) highest milk marketing per cow. Three regions were defined. The west region included dairy enterprises from California, Texas, Idaho, and Washington. The upper midwest consisted of Wisconsin, Minnesota, Iowa, and South Dakota. New York, Pennsylvania, and Vermont represented the northeast region. Several conclusions emerged from the study. First, farms in the West were substantially larger in terms of cows per farm and had greater average milk productivity than farms in the upper midwest and northeast. Yet, farms in the upper midwest had a large advantage when compared with the other regions in terms of variable cash costs. This advantage was due exclusively to lower costs for feed and hired labor. Future research might focus on how farms with 200 or more cows in both the northeast and upper midwest compare with their counterparts in the west. The largest size categories in both of these traditional dairy areas are rapidly growing. Modern, larger farms in these regions should attain some of the economies of scale enjoyed by farms in the west region, thereby reducing economic costs as well as the amount of assets per cow in this region.

**John Jinkins** is investigating methods of applying the entropy statistic to Farm Costs and Returns survey data to analyze farm business diversification strategies. This research uses the decomposition of the

entropy statistic to categorize farms as undiversified, diversified into related commodities, diversified into unrelated commodities, or vertically integrated. Preliminary results show the most common diversification strategy to be diversification among unrelated enterprises while vertical integration is the least common diversification strategy. Undiversified farms are larger than the other types of farms and more likely to be operated by a part time farmer. This research will give analysts the opportunity to compare financial performance among the various diversification strategies and to determine which farm characteristics most promote diversification. Results from this research will be published in AIS.

*Effects of Government Programs on Corn Production Costs and Returns, 1991 and 1992*, by **William D. McBride** will soon be published as an AIB. This report examines the impact of participation in the Government program for corn on corn costs and returns during 1991 and 1992.

*The Impact of Price and Production Costs on Planted Rice Acreage in the United States*, by **Michael Salassi**, will soon be published as a Technical Bulletin. This report examines the responsiveness of planted rice acreage to changes in price and production costs through the estimation of acreage elasticities.

### Publications

*Economic Indicators of the Farm Sector: Cost of Production, 1991—Major Field Crops, Livestock, and Dairy*. Agricultural and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture. ECIFS 11-3. February 1994. This year's report contains information for both crop and livestock enterprises, combining estimates previously reported in two separate publications. New production practice and expenditure data from the cotton, corn, and peanut versions of the 1991 FCRS were incorporated in the report. Average U.S. economic costs of producing corn, oats, wheat, milk, and cow-calf declined in 1991, while sorghum, barley, soybean, and rice production costs were higher than in 1990. Prices paid for most major input items showed slight gains. Seed and energy costs, however, remained relatively stable for most crop



commodities.

**Characteristics and Production Costs of U.S. Corn Farms, 1991, AIB 691, by William D. McBride.** The report shows that regional differences in production practices and in growing conditions had the greatest influence on production costs in 1991. The average variable cash cost of producing a bushel of corn was \$1.25, with individual farm costs ranging from about \$0.40 to more than \$8 per bushel.

**Effects of Government Programs on Sorghum Production Costs and Returns, 1990, AIB-689, by Nora L. Brooks** was released in December shows that when the direct effects of programs are included in the costs and returns estimates, gross returns, production costs, and economic costs are all higher.

The 1994-Costs of Production forecasts for major U.S. field crops were published in *Agricultural Income and Finance, AIS-51*, December 1993. Rising input prices will push up production costs slightly in 1994. The prices paid index is expected to rise 1-2 percent, with fertilizer prices up the most. Higher fertilizer prices will have a large impact on corn, a heavy nitrogen user. While most producers will see about 2-percent increase in their cash costs, cotton producers could well see a 4-percent rise due primarily to higher ginning expenses associated with increased yields.

**Soybeans: State-Level Production Costs, Characteristics, and Input Use, 1990, Statistical Bulletin Number 873, by Mir B. Ali and William D. McBride** was released in February 1994. Per-acre costs are highly variable among States due to differences in production practices, inputs, and type and size of machines used in soybean production. Total per-acre economic costs varied from \$151 in Mississippi to \$258 in Nebraska. Soybeans yields varied significantly from 10 bushel in Georgia to 43 bushels per planted acre in Indiana. Coefficients of variation included in this report indicates the statistical reliability of each cost estimate.

Cost of production forecasts, 1992-2005 for major field crops were revised by Mir Ali using USDA Baseline Projections and released in February 1994 for internal use only.

## Papers Presented and Meetings Attended

**Mitchell Morehart, and John Jinkins** were instructors at the 1993 Farm Costs and Returns Survey School held in Phoenix, AZ. The focus of this year's school was to instruct survey statisticians with relative little FCRS experience on the various types of information collected in the survey. A separate session was also held which focused on the diary cost of production questionnaire version.

**Mitchell Morehart** attended several Data Users Meetings sponsored by the department. These regional meetings provide a forum for feedback about data series procedures and availability. These meetings focused on Economic and Environmental Data collected and published by USDA.

**Mitchell Morehart** attended the annual FAPRI baseline review in Kansas City, MO. Macro economic forecasts for U.S. Agriculture were presented and evaluated. The program also featured representative farm analyses which the Farm Costs and Returns Section has been working on with Texas A&M University.

**William McBride and Michael Salassi** conducted a cost of production training seminar for visitors from the Bangladesh Agricultural Commodities Price Monitoring Group, Bangladesh Ministry of Food. Topics discussed during the seminar were how the Farm Costs and Returns Survey was used for data collection and methods used for cost of production estimation.

**Nora Brooks** attended a data users meeting concerning objectives for redesign of the 1997 Census of Agriculture and an update on the status of the 1992 Census. Bureau of the Census is seeking recommendations and feedback on current design and future data needs with current and future likely budget scenarios kept under consideration.

**Hisham El-Osta** was a discussant in a seminar that was given here in ERS in March by Michael Mazzocco (University of Illinois). The purpose of the seminar was to demonstrate how the data envelopment analysis could be utilized to measure the relative efficiency in food processing industries.

**Michael Salassi** presented a paper, "Rice Production Cost Elasticity," at the Twenty-fifth Meeting of the Rice Technical Working Group,

which was held in New Orleans, LA, March 6-9, 1994. This paper evaluated the response of planted rice acreage in the U.S. to changes in rice production costs through the estimation of production cost elasticities.

**Gerald Whittaker** presented two seminars discussing nonparametric regression of Farm Costs and Returns Survey data. Professor David Scott of the Rice University statistics department was the discussant of "Application of Nonparametric Regression to Mapping of Survey Data," a Washington Statistical Society Seminar, January 31 at ERS. The second

seminar was part of the cartographic lecture series at the National Center for Health Statistics, "Comparison of Nonparametric Regression Methods in Mapping Survey Data," presented at NCHS on March 1. These seminars discussed different aspects of the application of new statistical technique, nonparametric regression, which will allow presentation of survey data in the form of maps. Initial reaction to presentation of the data in maps has been very favorable.

## FINANCE AND DEVELOPMENT POLICY BRANCH

---

### Branch Office

---

#### Papers Presented and Meetings Attended

**Pat Sullivan** represented the agency at this year's meeting of the Southern Rural Development Center's Technical Advisory Committee. Consisting of representatives from the South's 29 land grant institutions, 4 other institutions with rural development interests (the Farm Foundation, the Kellogg Foundation, the Tennessee Valley Authority, and the National Association of Development Organizations), and 3 USDA agencies, the Technical Committee is charged with recommending a strategic plan for the Center's activities. For the next two years, the Committee recommended that the Center concentrate most of its effort on research and extension projects that aim to improve the lot of rural people. Specifically, the Center will target assistance to projects involved with: (1) human capital development, (2) leadership development, (3) rural health issues, and (4) rural poverty.

#### Briefings and Miscellaneous

In February, **Pat Sullivan**, Sara Mazie (OD), and Dick Long (OD) briefed Karl Stauber, Deputy Under Secretary for Small Community and Rural Development, on the structure and performance of rural financial markets. A key concern was whether economic research suggests that rural borrowers as a group--or significant classes of rural borrowers--are experiencing difficulty obtaining competitively

priced credit. A second concern was whether existing Federal credit programs appear to be addressing the problem areas uncovered in previous economic research. Finally, information pertinent to the Department's position on several upcoming policy decisions was assembled. Specific topics covered were: (1) the Community Development Financial Institutions Act, (2) revisions to the Community Reinvestment Act regulations, (3) expanded powers for the Farm Credit System, and (4) interstate bank branching. **Bob Collender**, **LorIn Kusmln**, **Jim Mikesell**, **Dan Milkove**, **Jim Miller** (HRI), **Janet Perry** (FSFA), and **Rick Reeder** prepared material for the briefing. A draft document prepared for the briefing has been circulated among Departmental officials and others with a policy interest in rural finance.

**Pat Sullivan** and Ken Deavers (OA) helped the Department's Procurement Review Task Force develop its final report over the holidays. The task force spent several months examining regulations governing the Department's procurement, agreement, and commodity purchase activities, looking for ways to streamline the process and reduce costs.

#### Personnel

**Tina Terry** is back in the office after a short maternity leave following the birth of her daughter, Tiara. Both are doing very well.



## **Agricultural Finance Section**

---

### Research and Analysis

**Bob Collender** has been working on a study involving an empirical test of farmers' capital structure decisions. Existing theory indicates that capital structure should adjust to changes in profitability and risk. Findings indicate these changes occur very slowly, if at all. A second study concerns the possible affects of expanding Farm Credit System lending authorities. Of greatest concern here is the risk/return trade-off and ensuring supervision commensurate with increased risk. A second issue is the potential loss of farm control, given the cooperative structure of these lenders.

**Bob Collender** and **Audrae Erickson** are initiating a study of the structure of the Farm Credit System Insurance Fund. The major concern with respect to the Insurance Fund is the small size of the risk-sharing pool--it now includes 11 banks with more mergers on the horizon--and the large size of some of these banks relative to the Fund.

The annual State Farm Credit Survey, conducted in fulfillment of the terms of the U.S. and Canada Free Trade Agreement, was completed. Survey questionnaires were sent to all 50 States, inquiring whether a State operated a credit program that made debt financing available at below market interest rates or on more favorable terms than were available from commercial lenders. According to survey results 31 States were operating some form of credit program, resulting in an estimated \$50 million subsidy to the farm sector. This represents a decrease of \$17 million from the previous year. The decline was due to lower market interest rates which reduce the subsidy amounts. **George Wallace** and **Audrae Erickson** had primary responsibility for overseeing the mailing and subsequent tabulation of survey responses. A report summarizing the programs available in each State will be published in the future.

**Ted Covey** and **Paul Sundell** (NEH) examined the low farm sector interest rates occurring in 1993. Rates on new real and nonreal estate farm loans "bottomed out" after a decline that began in the early 1980's. They predict that farm loan rates will increase during 1994, but to a lesser degree than the increase anticipated in economy-wide interest rates.

**Ted** and **Paul** are currently researching the impact this increase will have on the farm sector's financial condition.

**Steve Koenig** is modeling the performance of the Farmers Home Administration's (FmHA) guaranteed farm operating loan program. The primary objective of the research is to statistically identify financial and borrowers characteristics that are indicative of borrower default. Preliminary results suggest that certain widely used financial variables can be used by FmHA to predict or evaluate future guaranteed loan performance.

### Publications

The February issue of *Agricultural Income and Finance: Situation and Outlook Report* (AIS-52) was coordinated by **George Wallace** and **Jerry Stam**, with contributions from 7 other analysts from FDP, NEH, and FSFA. Financial institutions serving agriculture experienced stable or improved conditions in 1993, and some modest additional gains are expected in 1994. A decrease in net farm income and modest growth in asset values in 1993 mean that farm borrowing is forecast to rise only 1-2 percent in 1994. Since 1990, farmers have added to their debt, but very cautiously, with total debt increasing only 2.9 percent by the end of 1993. The delinquent share of loan portfolios was largely steady or down through the 12 months ending in June 1993. Adequate credit is available, except for certain types of farm borrowers, such as beginning farmers, who are generally considered higher risk and may be less able to obtain credit. The 1993 Midwestern floods and Southeastern and Mid-Atlantic drought created financial problems for many farmers. The decline in farm income that some farmers experienced due to the adverse weather has translated into increased demand for certain classes of farm loans. Farm lenders are helping customers in affected areas cope with loan repayment shortfalls with various types of forbearance and loan servicing options. Compared with 1992 averages, interest rates on new agricultural loans declined about 60 basis points for nonreal estate and 43 basis points for real estate.

AIS-52 includes three special articles authored by the section's staff. "Farm Credit System Seeks Expanded Powers" by **Audrae Erickson** and **Robert Collender** reviews why the FCS is seeking expanded powers in response to

changes in agriculture and agricultural lending that have limited its growth opportunities. Powers sought include expanded authority to finance agricultural commodity exports and rural needs, including housing, infrastructure, business, and rural development. The FCS's status as a Government-sponsored Enterprise and high safety and soundness standards are important considerations in expanding its powers and are evaluated.

**"Measuring Farm Sector Interest Rates" by Ted Covey, Paul Sundell (NEH), and James Ryan** notes that as a capital-intensive industry, the farm sector relies heavily on debt to finance agricultural production. Interest rates on farm loans represent the cost of debt to the American farmer. An understanding of how those rates are assembled and reported is essential before they can be interpreted and compared across time and lenders. The methods used in assembling the loan rates reported in the annual lender issue of AIS are explained in the article.

Finally **"Indicators of Financial Stress in Agriculture Reported by Agricultural Banks, 1982-93" by Jerry Stam and George Wallace** analyzes data from the annual farm credit situation surveys which have been conducted by the American Bankers Association (ABA) for many years. Successive survey results provide a picture of changing farm credit conditions at agricultural banks through time. Results show that, by most indicators, the levels of farm financial stress peaked in 1985-86. There was a period of strengthening farm sector fundamentals in 1987-89 with resultant stress levels for most indicators in the 1990's below 1982 levels. Exceptions exist for the loaned-up-to-the-limit and bankruptcy rates indicators. Data are presented for both regions and type of farming.

#### Papers Presented and Meetings Attended

During March, the National Agricultural Credit Committee (NACC) held its semiannual meeting in Washington with 47 in attendance. NACC is comprised of representatives from agricultural lenders and their trade organizations, Federal regulators, other Federal agencies interested in agricultural lending, and selected research organizations. It is an information exchange forum that has focused on agricultural finance since 1942. **Jerry Stam**

serves as secretary of the committee and is responsible for organizing the program and meeting. Speakers at the meeting included J.B. Penn of the Sparks Companies, Inc; Michael Dunn, Administrator, FmHA; Robert Thompson, Winrock International Institute; Joseph Coffey, Southern States Cooperative; and David Reinders, AgriBank.

**Bob Collender** presented an invited paper, "Future Directions for Research in Agricultural Banking Efficiency," at the ASSA meetings in Boston, January 3-5, 1994. Bob argued that although great progress has been made in efficiency research several fertile areas still exist. In particular, the incorporation of risk/return considerations and dynamics are not well developed in the literature. In addition, several problems persist in placing economic interpretations on accounting or regulatory data.

**Jerry Stam** presented "Life Insurance Company Farm Mortgage Lending In the United States: Coping With Change," at the Southern Agricultural Economic Association meetings held at Nashville, Tennessee on February 5-9. This paper examined the current role of life insurance companies in providing agricultural capital in the wake of farm sector financial stress in the 1980's and the advent of the Farmer Mac secondary market for farm mortgage loans. Today there are fewer life insurance companies offering new farm loans. Portfolios are more diversified, loans are larger, and lending has shifted to the Southeast and West. Life insurance companies have been key players in the first loan pools guaranteed by Farmer Mac. This lessens their involvement in direct farm loan activities, but allows a wider flexibility in managing their agricultural investment portfolios.

#### Briefings and Miscellaneous

**Ted Covey** and **George Wallace** met with economists and farm lender delegations from Africa and Albania. The delegations were given an overview of the American farm financial sector, with an emphasis on the role of debt in agricultural production and distribution and the institutions which provide financing.

**George Wallace** was invited to speak to a group of Russian bankers, farmers, and



business managers at Agricultural Cooperative Development International (ACDI) in Washington. George led a discussion on the delivery of agriculture credit in the United States.

**Ted Covey** was interviewed by USDA Radio. Ted gave his analysis as to how farmers should respond to the increase in farm loan rates expected to occur in 1994.

**Steve Koenig** briefed a delegation of officials from Ministry of Agriculture, People's Republic of China on financing the U.S. agriculture system. Delegation members were particularly interested in the operation of the Farm Credit System and the Federal Agricultural Mortgage Corporation.

**Jerry Stam** attended the Third Annual National Symposium for Agricultural Finance Executives in St. Louis on April 17-19. The symposium is sponsored by the Center for Farm and Rural Business Finance, a cooperative undertaking of the University of Illinois at Urbana-Champaign and the University of Arkansas.

#### Personnel News

**Bob Collender** has graduated from U.S. Office of Personnel Management's Executive Potential Program. This year-long program for mid-level managers included five weeks of management training, two 60-day details outside ERS, executive interviews and shadowing assignments, a group project, and working closely with an SES-level mentor. Bob did his 60-day details at OMB and the Farm Credit System Insurance Corporation.

### **Government and Development Policy Section**

---

#### Research and Analysis

**John Redman** and Dennis Brown (FRE) are working with staff of the National Institute of Standards and Technology (NIST) to describe the structure and geographic coverage of the emerging system of manufacturing technology centers. Under recent legislation, NIST is designing and implementing the creation of 100 extension centers across the nation. Redman's and Brown's research, which will result in a journal article, is focusing on

rural/urban differences in system coverage.

**Peter Stenberg** is completing research in which he is examining the strengths and weaknesses of small town downtown revitalization projects, such as those sponsored by the Main Street Program. His research design includes primary data collection at the sites of many of these projects. He has visited Bisbee, AZ; Hot Springs, SD; Chestertown, MD; and other towns participating in the Main Street Program. He has also visited other towns using historic preservation as a development strategy, including Galesburg, IL; Viroqua, WI; Frederick, MD; Deadwood, SD; Lancaster, WI; Bellevue, IA; Raton, NM; Cordell, OK; Dalhart, TX; Knoxville, TN; and Fredericksburg, VA.

Stenberg is preparing two reports on this subject. In one report, he will identify and describe the factors that have transformed the economies of small nonmetro towns and their central business districts. In a second report, he will describe the role that historic preservation can play in revitalizing the main streets of small towns.

**Rick Reeder** updated his analysis of local government finance statistics for the *Ag Factbook* and found that between 1982 and 1987, nonmetro counties, on average, increased their current local government expenditures in real per capita dollars, but their capital expenditures declined in real per capita dollars. During the same period, the average metro county increased real per capita spending on both current and capital expenditures. This suggests that fiscal impacts of rural economic difficulties during the mid-1980's may have been mainly in the form of reduced capital investment on public infrastructure. A probable major contributor to this development is the 1986 demise of the Federal general revenue sharing program; many rural governments relied on this program to finance infrastructure. The reduction in capital expenditures is likely to have detrimental impacts on many local rural areas for several years into the future; low levels of capital expenditures basically mean low levels of investments, especially in infrastructure.

A team of eight researchers, headed by Beryl Radin of the University of Southern California, has been studying 16 State Rural Development Councils in depth over the past couple of years. Findings are to be delivered to ERS



shortly; published reports should be available in late 1994. **Dave Sears** is providing oversight for this project, which is being conducted under a cooperative agreement.

### Publications

**John Redman** is the senior author of an article on developing a modernization strategy for the US apparel industry, a major employer in many rural areas. Redman's co-authors are Paolo Chiappina (an industrial extension agent specializing in apparel, Georgia Tech Research Institute) and Frank Clawsen (former chief of supplier quality for Sears Roebuck). The article appears in the June issue of the National Academy of Sciences' *Issues in Science and Technology*. The article centers on a proposal that calls for modernization of the industry through the creation of a network of the better small and medium-sized US apparel firms; the authors suggest that such a network could successfully compete in the international market if it was able to provide just-in-time inventory, superior quality and good customer service to large domestic retailers.

A four-institution joint research project culminated with the publication of a new report entitled *Toward an Understanding of Multicommunity Collaboration* (ERS Staff Report 9403). This report was written by Bev Cigler (Penn State U.), **Anicca Jansen**, Vern Ryan (Iowa State U.) and Jack Stabler (U. Saskatchewan). The report describes multicommunity collaboration in three regions - one each in Michigan, Nebraska and Alberta. The researchers found that although the multicommunity collaboration strategy shows promise and has theoretical and intuitive support, the strategy is relatively untested. For example, none of the collaboration efforts has resulted in a reverse in population decline, and these efforts do not necessarily result in increased local capacity. The research upon which this report is based is being extended with the help of a three-year CSRS grant.

**Dave Sears** and Norm Reid (RDA) are the co-editors of a book entitled *Rural Development Strategies That Work*. Interesting topics covered include traditional economic development strategies such as manufacturing recruitment as well as newer approaches such as peer group lending to stimulate micro-

enterprise development. The book is to be published by Nelson-Hall, under the auspices of the Policy Studies Organization; a late 1994 publication date is anticipated.

**Lorin Kusmin** wrote *Factors Associated with the Growth of Local and Regional Economies: A Review of Selected Empirical Literature*, Staff Report AGES 9405, which was released in March. The report discusses substantive results and modelling issues from 35 econometric studies of factors influencing regional growth. The studies that are covered consider a variety of possible influences on growth, including taxation and public expenditure policies, wage levels and other labor market conditions, educational attainment levels and other demographic and socioeconomic variables, access to transportation systems, industrial mix and climate. The review finds that the estimated effects of most proposed growth factors vary widely across studies. Methodological problems are noted that may limit the reliability or generalizability of the results of many of the studies reviewed.

The Council of Governors' Policy Advisors (CGPA), an affiliate of the National Governors' Association, recently published a report authored by **John Redman**. *Understanding State Economies Through Industry Studies* describes the ways in which studies of individual industrial sectors can be used by State officials to better understand and influence both substantive and process issues. Copies of the report are available at CGPA; phone 202-624-5386.

The third--and final--monograph on self-development as an approach to rural economic development was published in November. *From the Grassroots: Results of a National Study of Rural Self-Development Projects* (AGES 9325), co-authored by Gary Green, Jan Flora, Cornelia Flora and Fred Schmidt, is based on an examination of over 100 rural self-development projects across the country. The authors found that such projects are typically not the primary economic development activity in most rural communities, but tend to complement other programs to improve the local economy. Because self-development projects require strong participation and considerable interaction among local residents, these projects seem to be most useful in small communities.

The self-development project was carried out under a cooperative research agreement between ERS and the authors' universities (Kansas State, Virginia Tech, the University of Georgia, the University of Wisconsin, and the University of Vermont). **Dave Sears** provided overall guidance for the research. The two earlier reports were *From the Grassroots: Profiles of 103 Self-Development Projects* (AGES 9123) and *From the Grassroots: Case Studies of Eight Rural Self-Development Efforts* (AGES 9313).

A special issue of *Rural Development Perspectives* (October 1993) focused on rural development policy. This special issue was edited by Tom Rowley (OD) and **Anicca Jansen**. Among the articles were "Rural Development Policy: Responding to Change," co-authored by Anicca and Tom, and "State Leadership in Rural Development: The Rationale," co-authored by **Dave Sears** and **John Redman**, along with Dick Gardner (Executive Director of the Idaho Rural Development Council) and Steve Adams (Director of the Maine State Planning Office).

**Dave Sears** and **John Redman**, along with co-authors Dick Gardner and Steve Adams, had an article entitled "Gearing Up for Success" appear in *Northwest Report* (a periodical of the Northwest Area Foundation). The article is an excerpt from the book of the same title--which was published by the Aspen Institute in 1992.

**Peter Stenberg's** review of the books *Restructuring Rural Saskatchewan: The Challenge of the 1990's* by Jack Stabler and Margaret R. Olfert and *The Changing Role of Rural Communities in an Urbanizing World: Saskatchewan 1961-90* by Jack Stabler, Margaret R. Olfert, and Murray Fulton was published in the February issue of the *Journal of Regional Science*.

#### Papers Presented and Meetings Attended

**Peter Stenberg** participated in the 33rd Annual Western Regional Science Meeting in Tucson in February. Stenberg presented the paper "Reflections on the Regional Welfare Accruing from Academic Research and Education." He finds that investment in higher education institutions (including the educational, research and extension functions) is a good one. Even though the outcomes will vary, and will depend upon the regional context, the result will be net

positive economic growth payoffs for any region in which a higher education investment is made. Stenberg also discussed "The Role of Political Culture and Cultural Policy in Regional Development," a paper presented by Caroline Y. Robertson-Wessauer, University of Karlsruhe.

**Dave Sears** presented a paper at a special rural development session at the same Regional Science meeting. This paper--co-authored by Sears, Molly Shonka (National Governors' Association), Bob Lovan (National Partnership Office) and Karen Prentiss (Florida Rural Development Council)--was entitled "Learning Environments: A Route to Transforming Rural Development." The paper describes the ways in which the State Rural Development Council (SRDC) effort matches the theory of learning environments. In brief, the paper concludes that the SRDC effort has many of the innovative and collaborative characteristics of learning environments.

**Rick Reeder** attended a conference on Federal Empowerment Zones. The conference, sponsored by the George Washington University, was held in November. A summary of Reeder's report on State enterprise zones (published in 1993 as staff report AGES9305) was included in the conference's reference materials. In December, Rick presented his findings on State enterprise zones to a meeting of State Rural Development Administration directors.

**Peter Stenberg** has been working with Andrew Isserman, Director of the Regional Research Institute, on military base closures. They are using the quasi-experimental design method to analyze the impact of base closures on local communities.

In April, Tom Rowley (OD) and **Dave Sears** attended the annual spring conference of the NRDP. The meeting, held in Washington DC, included presentations from Under Secretary for Small Community and Rural Development Bob Nash and Deputy Under Secretary Karl Stauber. The conference included four "Strategic Opportunities Working Sessions" on (a) comprehensive planning, (b) workforce training and the competitiveness of rural employers, (c) sustainable communities, and (d) health and welfare reform efforts. These four working sessions were viewed as the kickoff for further action; the intention is that the groups will continue to work together in some form beyond the April meeting.



## Briefings and Miscellaneous

**Rick Reeder** has been providing significant input into the design and implementation of USDA's rural Empowerment Zone and Enterprise Community program. His efforts have been aimed primarily at making the program regulations flexible enough to meet the needs of rural communities. He has also contributed to plans for evaluating the program and has prepared a variety of briefing materials for Under Secretary Bob Nash, Acting Assistant Secretary Keith Collins, and Secretary Mike Espy.

In his role as Chair of the National Rural Development Partnership's Outcome Monitoring Team (OMT), **Dave Sears** has been leading discussions of the National Rural Development Council on several key recommendations of the OMT's July 1993 assessment report. These discussions have been useful in focusing attention on important substantive and process issues, and in developing a consensus on the action needed to achieve progress.

**Dave Sears** and Emery Castle (Oregon State University) are interim co-chairs of CROSSROADS. CROSSROADS is a new organization which is intended to serve as a vital professional association or network to support reliable multi-disciplinary rural research, informed rural development practice, and a strong link between the two. CROSSROADS will utilize, facilitate and

enhance, but not duplicate, existing organizations and associations. If CROSSROADS is successful, it will make existing organizations more effective. If you have any questions or suggestions on CROSSROADS, please contact either Castle or Sears.

Walt Armbruster, of the Farm Foundation, called a meeting of rural researchers from around the country to discuss ways in which the research community can more effectively impact policymakers. The meeting was held in Chicago in April. Most of the attendees represented land grant universities. **Dave Sears** attended as a representative of the Federal Government and as a representative of CROSSROADS (see above). Sears explained how land grant university rural researchers could fit into CROSSROADS.

## Personnel News

**Anicca Jansen** is on a short-term assignment with the Agency for International Development (USAID). She is working with USAID's Global Bureau through an agreement with USDA's Office of International Cooperation and Development. Her main responsibility is to provide technical assistance and a business orientation to projects in appropriate technology and value-added production. Jansen is working at USAID under a Resource Support Service Agreement which provides a core group of USDA technical and administrative staff to the Global Bureau.

# HUMAN RESOURCES AND INDUSTRY BRANCH

## Branch Office

**David McGranahan** presented an invited paper in April at the American Educational Research Association, "Rural America in the Global Economy: Recent Socioeconomic Trends." Socioeconomic trends have three basic effects on school systems: the resources of the students; the resources of the school system; and the types of opportunities for which schools are training their students. The fall in rural earnings, especially for the less educated, the rise in both rural two-earner and single-parent households, and the increase in

rural children's poverty will place rural school systems under greater stress in the 1990's. Children, families, communities, and schools are all likely to have fewer resources. At the same time, a good education has gained importance for future success of young adults, especially outside of rural areas. Finally, education appears to be undervalued by rural employers, who are often concerned foremost with low wages. The most effective school systems will be those that work with local employers to ensure that school graduates not going on to college are valued for their knowledge and abilities in the local labor market.



## Rural Labor Section

---

### Research and Analysis

**Elizabeth Dagata** is analyzing the 1979-1989 change in the metro/nonmetro gap in hourly wages using Current Population Survey (CPS) Earnings File data. Elizabeth has found that the pay gap widened over the decade because average metro wages grew slowly while the wages received by workers in nonmetro areas fell significantly. Shift-share analysis shows that both metro-nonmetro differences in labor force composition and metro-nonmetro differences in wage trends for specific labor force groups contributed to the growth in the rural wage gap. Results are reported in a forthcoming article in *Rural Development Perspectives*.

**Robert Gibbs** continued his research on the economic well-being of migrants. Drawing from the 1985-1988 waves of the Panel Study of Income Dynamics, **Robert** has found that rural-to-urban migrants earn less after moving than similarly educated and skilled urban migrants, although rural southerners are an exception. Results of his research will appear as an article in *Rural Development Perspectives* in 1994.

**Elizabeth Greenberg** and **Ruy Telxelra** continued work on a project analyzing skill demand and supply in rural areas using a number of special datasets, including the National Assessment of Educational Progress (NAEP), with county identifiers (the first time such geographical detail has been made available for these data). **Ruy** and **Elizabeth** are currently completing an article, "Educational Achievement in Rural Areas", based on their analysis of NAEP data from 1975 to 1990.

**Ruy Telxelra** has completed the article, "Human Capital Issues in Rural Areas," that he was invited to write for the forthcoming University Press of Kansas book, *The American Countryside: Rural People and Places* (Emery Castle, ed.). **Ruy** is also completing an article, "Skill Upgrading in the US Economy, 1970-2005" on whether and how much skill demand is increasing in the US economy. The article considers evidence from a variety of data sources, including those typically used by

sociologists (survey and case study data directly tapping changes in skill requirements) and those typically used by economists (wage data indirectly indicating such changes).

**Paul Swalm** is analyzing special Current Population Survey data sets on job qualifications, job training, and computer skills. Preliminary results suggest that rural workers receive less job training after leaving school than urban workers --a difference that grew during the 1980's-- and are more likely to report inadequate computer skills, despite the fact that fewer rural jobs involve the use of computers. **Paul** is also collaborating with Kathleen Paasch (Washington State University) to study the rural high school dropout problem. They are using data from the National Education Longitudinal Study and other sources to assess the importance of family and community resources, and local area job opportunities for educational attainment.

**Robert Gibbs**, along with **John Cromartle** of the Population Section of HRIB, is using the county-to-county migration matrix from the 1990 Census to study spatial variation in the out-migration rates of young rural adults. Early results indicate that both in- and out-migration rates for this age group exhibit clear regional patterns, with strong differences between the high rates in the West and low rates in the South. Also, the effects of local economies on migration appear to depend on education level. High wages are more important in retaining high school graduates in the local area, while job growth is critical to high school dropouts. Preliminary findings were presented at the annual meetings of the Southern Regional Science Association in April.

### Publications

"Recent Trends in Job Training" by **Paul Swalm** and Norman Bowers (Organization for Economic Co-operation and Development) appeared in the January 1994 issue of *Contemporary Economic Policy*. **Paul** and **Norm** show that a larger share of the American workforce had received training to improve their skills on their current jobs in 1991 than in 1983, and that formal training programs had increasingly displaced informal on-the-job learning as the source of skill-upgrade training. Increased and increasingly formalized job training suggest that employers were requiring different and perhaps more advanced skills in

the early 1990's than a decade earlier. A related finding is that the jobs in which incumbent workers receive on-going training pay better than other jobs and this pay premium increased over the 1980's. Despite the trends toward rising skill investments and rewards, many workers were left out, reporting that their jobs neither provided training nor presupposed qualifying skills.

**Ruy Teixeira** published an article, "Demographic Change and the Human Capital Endowment of Rural America" in the recent ERS monograph, *Population Change and the Future of Rural America* (Linda Swanson and David Brown, eds.) Ruy and Lawrence Mishel (Economic Policy Institute) also published an op-ed on "The Mythical Skills Shortage" in the *Cleveland Plain Dealer* and 28 other newspapers (combined circulation 2,269,000).

#### Papers Presented and Meetings Attended

**Paul Swalm** organized and chaired the session "Education and Labor Markets" at the annual meetings of the Allied Social Sciences Association on January 4 in Boston. Paul also presented his paper (co-authored by Kathleen Paasch), "Why Students (Still) Drop Out of High School: Do Labor Market Incentives Matter?"

#### Briefings and Miscellaneous

**Tim Parker** and Karen Hamrick (NEH) presented some of their research on nonmetro unemployment at the ERS Situation and Outlook Briefing on December 21, 1993. Tim found that much of difference in metro and nonmetro unemployment rate since 1992 is a result of sluggish metro economies in California and the Northeast. Nonmetro unemployment was higher than metro from 1979-91, however, since 1992 nonmetro unemployment has been lower than metro unemployment.

#### Personnel News

**Kathleen Paasch** resigned from the rural labor section in December in order to assume a senior research position with Washington State University in Pullman. Kathleen is continuing to collaborate with her former ERS colleagues

in a study of rural education.

## Population Studies Section

#### Publications

*Population Change and the Future of Rural America. A Conference Proceedings*, Staff Report No. AGES 9324, **Linda L. Swanson** and David L. Brown, eds., was released in November 1993. The report presents proceedings of a multidisciplinary workshop sponsored by the Aspen Institute, Cornell University, and the Economic Research Service. The workshop endeavored to increase understanding of the role demographics play in rural development by examining the broad set of social and economic forces, and demographic processes affecting rural regions and individual communities. New directions for rural demographic and development research that arose from a set of issue briefs and work group discussions are included in the report.

#### Papers Presented and Meetings Attended

**Paul Frenzen** presented some preliminary results from his analysis of the impact of health care reform on rural residents at the semi-annual meeting of Rural Health Research Center Directors organized by the Federal Office of Rural Health Policy in Bethesda, MD on March 24. He also attended a reception marking the relocation of the headquarters of the National Rural Health Association from Kansas City to Washington, DC, in February, and represented ERS at the Interagency Forum on Aging Related Statistics held in Bethesda on March 10.

**John Cromartie** presented a paper, "Representing the changing geography of U.S. metropolitan settlement" at the annual meeting of the Association of American Geographers in San Francisco on March 31. An evaluation of current criteria used to delineate metro areas reveals that, far from being out-dated or lacking in principle as others have claimed, the current system sets out a fairly sophisticated, iterative region-building process that does justice to the current spatial structure of cities. Problems arise not from needfully complex standards but from the use of geographic building blocks (counties) that are too large to accurately represent today's complex



settlement patterns. John also attended the annual meeting of the Mid-Atlantic Division of the AAG, held in Arlington on March 12, where he chaired a session entitled "Thinking Globally, Acting Locally: Rural Adjustment in the 1990's".

### Briefings and Miscellaneous

**Paul Frenzen** provided information on health status and health care resources in the U.S. and Illinois for the Office of Secretary Espy. The information was requested for Secretary Espy's address to the Illinois Rural Health Association in late March.

**John Cromartie** participated in the April 7 hearings held by the House Committee on Natural Resources in Salt Lake City. In grappling with "The Changing Needs of the West" the Committee wished to gain a greater understanding of recent demographic and economic changes. John was asked to summarize ERS research on population growth, net migration, job and earnings losses in resource-based industries, and growth in the service sector. John emphasized the great diversity of conditions and trends in the West, between the Mountain and Pacific Divisions, between metro and nonmetro areas, and within nonmetro areas depending on economic base, accessibility, and the value placed on a area's amenities. Along with several other witnesses, John stated that the West has entered a period of rapid population growth in many areas that are environmentally sensitive, lack the carrying capacity of previously settled areas, and are valued for their pristine condition. Therefore, we can expect increased concern over the effect of population growth in nonmetro areas throughout the West.

## **Rural Industry Section**

---

### Research and Analysis

**Martha Frederlck** is researching nonmetropolitan travel and tourism-related counties. Using unsuppressed employment data from the Bureau of Labor Statistics ES202 data, she has found that 261 nonmetro counties have significant employment (over 15%) in travel and tourism-related industries. The travel and tourism-related industries are

the sum of 29 different 4-digit SIC industries. The tourism-related counties will be analyzed to discover common characteristics.

**Andy Bernat** and **Deborah Tootle** are using the Environmental Protection Agency's Toxic Release Inventory data to gain a better understanding of the impact of higher polluting industries on rural areas. **Andy** is investigating the relationships between job growth and toxic releases. **Deborah** is examining the relationships between toxic releases, economic well-being and race.

### Papers Presented and Meetings Attended

**Andy Bernat** presented the paper "Does Manufacturing Matter? Kaldor's Laws Revisited in a Regional Context" at the annual meetings of the Southern Regional Science Association in Orlando, Florida, April 7-10. The paper showed that there is a significant relationship between growth in manufacturing output and growth in gross state product and that this relationship has a significant spatial dimension.

**Deborah Tootle** collaborated with Edward Malecki from the Department of Geography at the University of Florida on the "Importance of Networking to Business Survival and Growth." This paper describes cooperative relationships among small firms, their roles in local economic development, and strategies developed in the United States to address the needs of small firms. Edward Malecki presented the paper at the annual meeting of the Southern Regional Science Association in Orlando.

**Martha Frederlck** attended the meetings of the Mid-Atlantic Division of the Association of American Geographers. The meetings were held at Fort Belvoir, VA, on Saturday, March 12.

**Andy Bernat** attended the meetings of the Southern Regional Science Association in Orlando, Florida, April 7-10.

### Personnel News

**Alma Young** transferred to the Section from ATAD.

## A View from the Branch

by Douglas Bowers, Acting Branch Chief

The National Economy and History Branch has continued to go through a period of transition in personnel and functions. In November I became the third Acting Branch Chief since **Thomas F. Hady** retired last April. That same month, **Mark Denbaly** rejoined the Branch as Acting Section Head of the Macroeconomics Section. As Mark describes in more detail under his note, the Section's work is expanding to include the addition of exchange rates, trade, and interest rates to the domestic macroeconomic model. To assist this effort, three economists, **Tim Baxter**, **Alberto Jerardo**, and **Doug Rhodes** have transferred to the Section from ATAD and FREB (ARED), respectively. The reorganized Macroeconomics Section has gotten off to a strong start. On the other side of the ledger, the Branch lost two members of its National Aggregate Analysis Section, **Art Wiese** and **Ron Babula**, who left for the American Petroleum Institute and the International Trade Commission, respectively. Despite all these changes, the Branch's work has proceeded without missing a beat. We look forward to continuing our particular specialty of providing the agency's national perspective on the economy and history.

## National Aggregate Analysis Section

### Publications

The Fall 1993 issue of the *International Journal of Supercomputer Applications* includes an article by Agapi Somwaru (DSC) and **Kenneth Hanson**. The article, "Globally Convex Agricultural Production System: Parameter Estimation" reports results of an effort to use the large computer memory of the Cornell National Supercomputer Facility to estimate a large, globally convex, flexible agricultural production system. Independently estimated parameters can often be incompatible in a Computable General Equilibrium (CGE) model. To address this problem the authors incorporate an econometric model of agricultural production which maintains

flexibility and global convexity for a large number of inputs and outputs into a Computable General Equilibrium model. This endeavor leads to a computationally complex estimation problem. They develop and implement an iterative least squares procedure to estimate the parameters of this nonlinear production system subject to nonlinear constraints imposed by the underlying economic theory.

The Fourth Quarter 1993 issue of *Choices, the Magazine of Food, Farm, and Resource Issues* includes two articles by NAA staff. The article, "Linking Agriculture to the Economy" by Kathryn Lipton (ODA) and **William Edmondson** reports a graphical summary of Edmondson's 1992 income and employment in the U.S. Food and Fiber System and his estimates of economic activity related to 1992 U.S. agricultural exports. The other article, "Is the Farm Income Multiplier Seven?" by **Gerald Schluter** reports on the weak economic foundation of a bit of farm country folk lore - "There is a seven dollar increase in national income for every dollar increase in sales of farm products." This conventional wisdom stems from a mid-forties study which was reported in the farm popular press, but perhaps not taken seriously enough by professional economists that they felt a need to challenge it. Schluter's article explores the original study and updates the mid-forties estimate to the present. Using the same procedure the multiplier today would be nearly twenty-three. Schluter argues what is reported as a multiplier is really an accounting relationship and "lore passed down from an earlier generation is not a substitute for a clear understanding of cause and effect."

**William Edmondson** and **Michelle Robinson** recently wrote "U.S. Agriculture Trade Boosts Overall Economy" published in the September/October 1993 *FATUS*. The article examines agriculture's role in stimulating the economy, generating employment, income and purchasing power in both the farm and nonfarm sectors. The article looks at bulk and high value exports levels, the effects of agricultural imports and exports, and income effects of agricultural trade. In addition, the article includes graphs which show the effects of net agricultural exports on the domestic



economy over time (since 1984).

### Papers Presented and Meetings Attended

**Kenneth Hanson** attended the Fourth CGE Modeling Conference at the University of Waterloo, Ontario, Canada, October 28 through 30. The conference was well attended by about 70 CGE modelers, interested economists, and graduate students. Ken found the conference to be a good opportunity to stay in touch with developments in CGE modeling and software. This year there seemed to be more interest in environmental modeling and modeling of imperfect competition along with the usual strong interest in trade modeling. There are plans for a Fifth conference next year at the same time and place.

**Gerald Schluter** presented a paper, "Alternate Measures of the Role of a Sector in a Regional Economy" at the 1994 Annual Meeting of the Southern Regional Science Association in Orlando, Florida, April 7-10. His paper discussed the conceptual and empirical basis of ERS's Food and Fiber System income and employment estimates and explored ways in which these procedures could be used to estimate the size of the economic role a sector played in a regional economy. This paper may well be a building block for a larger one to be presented later as a principal paper at the AAEA meetings in August, 1994. Schluter's efforts will be combined with a survey of estimates of the role agriculture plays in individual state economies being conducted by Julie Leones, University of Arizona, and with the experience of George Goldman of University of California-Berkeley using the IMPLAN model to make these types of estimates.

Schluter also discussed two papers, chaired a session and attended the SRSA executive board meeting.

### Briefings and Miscellaneous

Richard Cabe of New Mexico State University, Las Cruces visited **Kenneth Hanson** of the National Aggregate Analysis section to start off a cooperative agreement on environmental accounting. In the cooperative agreement ARED and New Mexico State plan to build on a 1990 *Journal of Soil and Water*

*Conservation* article by Richard Cabe and Stanley Johnson in which they proposed to revise the income account for agriculture to account for the natural resource and environmental emissions. During Cabe's visit Richard and Ken met with Klaus Alt and Liu-Hsiung Chuang of the Soil Conservation Service, Eldon Ball and Marc Ribardo of RTD, and Cabe visited EPA. Cabe was pleasantly surprised to find more interest in environmental accounting in the U.S. government than he had expected.

The 1994 *Economic Report of the President* included the statements, "Moreover, exports have become more dependent upon imports. Between 1982 and 1987, the most recent years for which data are available, the import content of exports rose from 10 to 14 percent" (pp. 208). **Ken Hanson** and **Chlnkook Lee** did the analysis underlying these estimates. These estimates were part of a broader analysis of the structural effect of trade on the U.S. economy which NAA researchers conducted informally with CEA analysts.

### Personnel News

**Art Wiese** left to take a position with the American Petroleum Institute.

**Ronald Babula** left for a position with the International Trade Commission.

## Macroeconomics Section

Much has happened since the last issue of this publication. Last December, the Section's mission was expanded and **Mark Denbaly** returned to head up the Section as Acting Leader. The new mission requires the Section to add, to domestic factors, the international economic forces that affect the U.S. macroeconomy. Adding the international perspective has placed the Section in a position to provide better information about the U.S. economy. The addition of **Tim Baxter**, and **Andy Jerardo** who came from ATAD, and **Doug Rhoades** from FRE/ARED has put the Section in a stronger position to carry out its new mission..

To fully address the much expanded responsibility with the same number of people as one year ago, we have used a simple

economic principle: allocate the experts to their areas of specialty and allow them to run with it. The Section's current vehicles for analyzing macroeconomic policy issues are closed; that is, they don't account for events outside the United States. Luckily, we have experts in all areas so that the models can be opened to account for the missing international forces. For example, we've known that U.S. interest rates are tied to the international credit markets and our expert in this area is **Paul Sundell**. Exchange rates are no longer fixed and we have an analyst, **Andy Jerardo**, who has done much work in this area. Finally, trade volumes have to change with economic forces and **Tim Baxter** has a great deal of experience in that area.

With this re-organization and the respectful team spirit that exists amongst the staff, the Section will provide better economic analyses and forecasts for the U.S. economy.

#### Research and Analysis

**Paul Sundell** is expanding the domain of his research focus on interest rate determination. Since interest rates (both in farm and nonagricultural sectors) are no longer determined in closed boundaries of the United States, Paul is examining how and to what extent credit conditions outside the United States influence domestic interest rates. In this context, the behavior of central banks and the real interest rate linkages across countries are especially important areas to be examined. To this end, Paul has begun to first research the operating procedures of large developed country central banks. He finds that, over the last ten years, most central banks of large developed countries have returned to policy of targeting short-term interest rates to achieve macroeconomic objectives. In the coming year, this research will develop a system of reaction functions for central banks and term structure equations to forecast general and agricultural interest rates (both short- and long-term) for G7 and Mexico based on interconnected international financial markets.

**Alberto Jerardo** serves on the ERS task force assigned to monitor the NAFTA effects on the U.S. and Mexican economies. As member of the task force, he is responsible for conducting research and providing reports on the macroeconomic effects of the agreement. In

March 1994, Andy provided a preliminary analysis about the "Expected Macroeconomic Effects in Mexico and the U.S. resulting from NAFTA." Andy is expected to strengthen his research in this area and provide new and useful information to policymakers.

As part of a larger project of modeling the U.S. in the world economy, **Andy** is also constructing an exchange-rate forecasting model for the currencies of the Group of Seven industrial countries plus Mexico. The Section hopes to connect the G7 and Mexican macroeconomic policies to exchange rate movements for policy analysis. If successful, the system will be used to open the closed U.S. macroeconomic model that is currently being used by the Section to generate macroeconomic forecasts.

**Karen Hamrick** is coauthoring the paper "Are Forecasting Skills Transferable from One Discipline to Another?" with Debra Gerald, U.S. Department of Education and Herman Stekler, National Defense University. The forecasting community is currently debating whether forecasting is a separate discipline or whether it is an extension of a profession such as economics. If indeed forecasting is a transferable skill, forecasters should be able to apply those forecasting techniques to forecasts of things outside their professional area of expertise.

#### Publications

**Paul Sundell** published two articles in the *Agricultural Income and Finance Situation and Outlook Report*, February 1994. In the first article (with Ted Covey (FDP)), Paul discusses farm interest developments in 1993 and the outlook for agricultural interest rates in 1994. In the second article (with Ted Covey (FDP) and James Ryan (FSFA)), Paul explains the measurement of farm and nonfarm interest rates. Agricultural loan rates, especially those made by the Farm Credit System and Farmers Home Administration, are subject to many measurement problems involving credit risk. Survey measures of agricultural interest rates at commercial banks are characterized by inconsistency in terms of survey timing as well as differences in district definitions of agricultural banks.

**David Torgerson** and **Art Wiese**, American



Petroleum Institute, wrote "Current Macro and Industrial Outlook" in the December 1993 issue of the *Industrial Uses of Agricultural Materials*.

**Alberto Jerardo** (Andy) published "Trade Within Asia Is Expanding" in the December 1993 issue of *Agricultural Outlook*, AO-203. This work highlights Asia's increased inter-regional trade as market activity elsewhere slowed in recent years. As increased foreign direct investments flowed into and within Asia, primarily from Japan, the volume of Asia's trade expanded substantially.

**Andy** also published "EC Exchange Rate Bands Widen" in the November 1993 issue of *Agricultural Outlook*, AO-202. The article examines the short-term and long-term implications of the summer 1993's exchange rate policy developments in Europe on bilateral trade with the U.S.

**Andy's** paper "Exchange Rate Forecasts Using Eurocurrency Interest-Rate Differentials" will be published in the forthcoming *Papers and Proceedings of the 1993 Federal Forecasters Conference*. Andy uses the covered interest-rate parity condition in the Eurocurrency market to forecast short-term Deutsche mark/dollar and Japanese yen/dollar exchange rates. This paper was also presented at the Sixth Annual Federal Forecasters Conference in Crystal City, VA., last summer.

In addition to monthly macroeconomic reports in the *U.S. Agricultural Update*, **Andy** prepares a table on world GDP growth rates, graphs on macroeconomic indicators for the U.S., Japan, and Germany, plus a table of U.S. trade indicators. The table on world GDP growth rates are published in Table 3 of the *Agricultural Outlook*.

The Abstract of **Mark Denbaly** and **David Torgerson's** article on overshooting of agricultural commodity prices published in the *Journal of Agricultural Economics Research* is cited in the March 1994 issue of *Journal of Economic Literature*.

The Abstract of an article by **Mark Denbaly** and Harry Vroomen, the Fertilizer Institute, about the dynamic of fertilizer demands published in the *American Journal of Agricultural Economics Research* is cited in the December 1994 issue of *Journal of Economic Literature*.

## Papers Presented and Meetings Attended

**David Torgerson** presented the results of current research on "Tests of the Unbiasedness Hypothesis: the Cases of Wheat and Soybeans" conducted by **Mark Denbaly** and **David Torgerson** to the Decision Sciences Institute meeting in Washington, D.C. The paper's contribution is that interest rate is a dynamic driver of arbitrage and that the wheat market futures price is on average an unbiased forecaster of future cash prices--the soybean futures market price provides a biased forecast of the future soybean cash price. This dichotomy is not surprising given the extreme volatility of the soybean cash price.

## Briefings and Miscellaneous

In January 1994, **David Torgerson** presented the near-term outlook in the Tuesday Morning Briefing and briefed Keith Collins about the 1994 outlook, suggesting why the consensus GDP forecast was too pessimistic. The Blue Chip forecasters have since raised their forecast of the 1994 GDP growth rate by 1 percentage point, after the stellar 7.0 percent growth of the last quarter of 1993 was announced in March 1994. The interest rate forecasts for this effort were developed by **Paul Sundell** who anticipated the recent FED tightening.

**Karen Hamrick** and Tim Parker (HRIB) gave the ERS Situation and Outlook Briefing on December 21, 1993, "Rural Unemployment: Current Conditions and Future Trends." **Annette Dargan** provided statistical assistance in preparation of the briefing. Karen presented the ERS forecasts of U.S. and nonmetropolitan unemployment rates. She also discussed the Bureau of Labor Statistic's employment projections for 1992-2005. Her analysis found that rural areas are somewhat disadvantaged in their industry and occupational positioning for the work force changes expected over the next 13 years.

The Section conducted a number of staff analyses during the last three months for the Secretary's Office. For example, **Dave**, **Tim**, and **Mark** reviewed the International Economy chapter of the *Economic Report of the President*. **Tim** and **Dave** put together the macroeconomic bullets for Keith Collins' Senate testimony. **Mark**, **Dave**, and **Paul** developed a primer on Federal Deficits. **Mark**

and **Dave** analyzed the rural and agricultural implications of a Wharton Econometric Forecasting Associates view of macroeconomic effects of a Balanced Budget Amendment. Finally, **Dave** explained the causes and implications of the strong fourth quarter 1993 GDP growth. **Doug Rhoades** and **Jerry Schluter** analyzed the effects of consumers's spending decisions on the U.S. economy.

## **Agriculture and Rural History Section**

---

### Research and Analysis

**Cecil Harvey** has completed an updated version of his compilation of biographies of USDA Secretaries and Assistant Secretaries entitled "The United States Department of Agriculture and Its Leaders." The latest edition includes present Administration personnel, insofar as they have been appointed. Copies are available from the History Section.

**Doug Bowers** provided a historical sketch of farm programs for a forthcoming ERS publication which will serve as background to the 1995 farm bill. Conditions have changed greatly since farm programs were first enacted in the 1930's. Although the problem of surplus production remains, the original farm bills were also seen as ways of aiding the rural economy. In the 1930's the farm population made up a far larger share of rural population than today and a much higher percentage of farmers relied on farm income as their main source of income.

**Anne Effland** wrote a background "thought piece" for the Secretary's retreat in May, entitled "The Future of American Agriculture as Envisioned by Former U.S. Secretaries of Agriculture." Few Secretaries have had a carefully thought-out vision of the future, but much insight can be gained by looking at their goals and how they dealt with the issues of their times. Over the course of this century has come the growing recognition that technological change meant the end of the small, general farm that typified American agriculture and the emergence of large, highly capitalized and highly specialized farms able to compete in the global arena.

### Papers Presented and Meetings Attended

**Lowell Dyson** attended the annual meeting of the Organization of American Historians, April 14-17, in Atlanta, Georgia. On Thursday, he chaired a very well attended session, "Organizing for Survival: Farm Movements in the Twentieth Century." The three papers stimulated spirited responses from the audience including some of the senior historians in American History. Later in the meeting, Lowell, in his position as Executive Secretary-Treasurer of the Agricultural History Society, presided at meetings of the Peterson Rural Art Fund Award Committee and the Executive Committee of the Society. At the luncheon meeting of the Society, marking the 75th anniversary of its founding principally by USDA economists in 1919, he gave the financial report and presented the Saloutos Award for the best book in agricultural history to Professor Emerita Mary W. M. Hargreaves, for her *Dry Farming in the Northern Great Plains: Years of Readjustment, 1920-1990*.

**Anne Effland** participated in a panel, "Women's History: Unusual Venues, Unexpected Sources," at the annual conference of the Washington/Chesapeake Area Women Historians, March 12, at American University.

**Joel Schor** and **Cecil Harvey** organized a presentation on "The Black Land-Grant College System: Shaping Agriculture Past, Present, and Future," sponsored by the ERS/EO Advisory Committee and the Black Professionals in ERS. Held in the Waugh Auditorium on March 16, the well-attended seminar featured talks by McKinley Mayes of CSRS on grants and other programs available for the 1890 colleges through the Department and Joel Schor on the history of the 1890 institutions.

**Cecil Harvey** attended a meeting of the Native American Work Group (NAWG) to discuss the Department's involvement in the agriculture of American Indians. One of the topics discussed was the initiation of a census-type survey of Indian lands and farm operations to be done by NASS. This will hopefully expand the basic data available for those interested in Native American agriculture.



**Anne Effland** served as chair of a committee of the Society for History in the Federal Government to create guidelines for an award to be given by the Society to the best student presentations on the topic of Federal Government History at the annual National History Day Competition at the University of Maryland. The competition brings together junior and senior high school students from all

over the country who have won state contests for projects, essays, and dramatic presentations of themes in American history.

**Anne Effland** has been asked to serve on the Board of Editors for H-Rural, a rural history electronic discussion list coordinated by H-Net, the history electronic discussion network. The network will shortly begin carrying book reviews.

## INDEX OF REPORTS AND PAPERS

1994 Economic Report of the President .....	29
A Review of Farm Accident Data Sources and Research .....	10
A Summary of the Worker Protection Standard for Agricultural Pesticides .....	10
Ag Factbook .....	21
Agricultural Adaptation to Urban Influence in U.S. Metro Counties .....	15
Agricultural Income and Finance Situation and Outlook Report .....	14
Agricultural Outlook .....	31
Agricultural Policy Reform: A Proposal .....	9
Alternate Measures of the Role of a Sector in a Regional Economy .....	29
American Journal of Agricultural Economics Research .....	31
Application of Nonparametric Regression to Mapping of Survey Data .....	18
Are Forecasting Skills Transferable from One Discipline to Another? .....	30
Choices, the Magazine of Food, Farm, and Resource Issues .....	28
Cleveland Plain Dealer .....	26
Comparison of Nonparametric Regression Methods in Mapping Survey Data .....	18
Contemporary Economic Policy .....	25
Current Macro and Industrial Outlook .....	31
Demographic Change and the Human Capital Endowment of Rural America .....	26
Dry Farming in the Northern Great Plains: Years of Readjustment, 1920-1990 .....	32
EC Exchange Rate Bands Widen .....	31
Economic Indicators of the Farm Sector: Cost of Production, 1991--Major Field Crops, Livestock, and Dairy .....	16
Economic Indicators of the Farm Sector: National Financial Summary, 1993 .....	15
Economic Indicators of the Farm Sector: State Financial Summary, 1993 .....	15
Economic Well-Being of Farm Operator Households, 1991-92 .....	14
Educational Achievement in Rural Areas .....	25
Effects of Government Programs on Corn Production Costs and Returns, 1991 and 1992 .....	16
Effects of Government Programs on Sorghum Production Costs and Returns, 1990 .....	17
Exchange Rate Forecasts Using Eurocurrency Interest-Rate Differentials .....	31
Factors Associated with the Growth of Local and Regional Economies: A Review of Selected Empirical Literature .....	22
Farm Business and Household Characteristics Vary by County Type .....	14
Farm Credit System Seeks Expanded Powers .....	19
Farm Operator Household Characteristics from Two Sources: The Farms Costs and Returns Survey and the Current Population Survey .....	14
FATUS .....	28
FCS Non-accrual Loans--Farm Financial Conditions or Jurisdictional Laws? .....	14
FoodReview .....	12
From the Grassroots: Case Studies of Eight Rural Self-Development Efforts .....	23
From the Grassroots: Profiles of 103 Self-Development Projects .....	23
From the Grassroots: Results of a National Study of Rural Self Development Projects .....	22

Future Directions for Research in Agricultural Banking Efficiency . . . . .	20
Gearing Up for Success . . . . .	23
Globally Convex Agricultural Production System: Parameter Estimation . . . . .	28
Hired Farm Labor Use on Fruit, Vegetable, and Horticultural Specialty Farms . . . . .	10
Human Capital Issues in Rural Areas . . . . .	25
Importance of Networking to Business Survival and Growth . . . . .	27
Indicators of Financial Stress in Agriculture Reported by Agricultural Banks, 1982-93 . . . . .	20
Industrial Uses of Agricultural Materials . . . . .	31
International Journal of Supercomputer Applications . . . . .	28
Is the Farm Income Multiplier Seven? . . . . .	28
Issues in Science and Technology . . . . .	22
Journal of Agricultural Economics Research . . . . .	31
Journal of Economic Literature . . . . .	31
Journal of Regional Science . . . . .	23
Journal of Soil and Water Conservation . . . . .	29
Learning Environments: A Route to Transforming Rural Development . . . . .	23
Life Insurance Company Farm Mortgage Lending In the United States: Coping With Change . . . . .	20
Linking Agriculture to the Economy . . . . .	28
Measuring Farm Sector Interest Rates . . . . .	20
Northwest Report . . . . .	23
Papers and Proceedings of the 1993 Federal Forecasters Conference . . . . .	31
Population Change and the Future of Rural America. A Conference Proceedings . . . . .	26
Population Growth and New Marketing Concepts Fuel Job Growth for the Retail Food Industry . . . . .	12
Ranking of States and Commodities by Cash Receipts, 1992 . . . . .	15
Recent Trends in Job Training . . . . .	25
Reflections on the Regional Welfare Accruing from Academic Research and Education . . . . .	23
Representing the changing geography of U.S. metropolitan settlement . . . . .	26
Restructuring Rural Saskatchewan: The Challenge of the 1990's . . . . .	23
Restructuring U.S. Agriculture: Implications for Rural Education and Other Community Services . . . . .	10
Revenue Assurance: Radical New Policies in 1995 . . . . .	9
Rice Production Cost Elasticity . . . . .	17
Rural America in the Global Economy: Recent Socioeconomic Trends . . . . .	24
<i>Rural Conditions and Trends</i> (Vol. 4, No. 2) . . . . .	5
Rural Employment Recoving Slowly; Earnings Gap Widens . . . . .	5
Slow Growth Continues . . . . .	5
Moderate, Uneven Gains for Rural Employment . . . . .	5
Decline in Rural Unemployment Stalls in the Second Quarter of 1993 . . . . .	5
Rural Jobs Withstood the 1990-91 Recession Better than Urban Jobs . . . . .	5
Effects of 1990-91 Recession on Rural Earnings Were Comparatively Mild . . . . .	5
<i>Rural Conditions and Trends</i> (Vol. 4, No. 3) . . . . .	5
Nonmetro Renaissance Evaporated During the 1980's . . . . .	5
Metro-Nonmetro Distinction Primary; Finer Classifications Add Depth . . . . .	5
Blacks Maintain Small Nonmetro Growth; One in Four New Nonmetro Residents is Hispanic . . . . .	5
Shortage of Young Adults in Nonmetro Areas Greater Than Ever . . . . .	5
Nonmetro Outmigration Exceeded Immigration During the 1980's . . . . .	5
Fertility Rates Remain Somewhat Higher in Nonmetro Areas . . . . .	5
Fewer Nonmetro Children Live With Both Parents . . . . .	5
Household Formation Continues to Outpace Population Growth . . . . .	5
Nonmetro College Completion Rates Fall Further Behind Metro . . . . .	5
Nonmetro Labor Force Size and Participation Rate Up Moderately . . . . .	5
Nonmetro Areas Trail in Growth of High-Income Occupations . . . . .	6
Service Industries Dominate Nonmetro Employment Growth . . . . .	6
Commuting Times Increasing, but Shorter for Nonmetro Workers . . . . .	6



Nonmetro Real Family Income Stagnated During the 1980's .....	6
Nonmetro Poverty Rate Inches Back Up .....	6
Families With Children and Headed by Women Fare Worst .....	6
Nonmetro Housing Growth Slows; Vacancy Rate Still Double Metro Rate .....	6
Nonmetro Access to Complete Plumbing Increases .....	6
Nonmetro Owner Occupancy Still Much Higher Than Metro .....	6
Mobile Homes Have Been the Largest Source of Growth in Nonmetro Homeownership for Two Decades .....	6
<i>Rural Conditions and Trends (Vol. 4, No. 4)</i>	
Rural and Urban Economies Benefit from Year-End Surge .....	6
Growth to Turn Strong in 1994; Inflation Stays Low .....	6
Service Industries Expected to Dominate 1992-2005 .....	6
Rural Employment Grows Moderately Throughout 1993 .....	6
Rural Unemployment Falls Throughout 1993 .....	6
Farm Entrepreneurs Depended on Both Farm Self-Employment and Wage and Salary Incomes in 1992 .....	6
Hired Farmworker Earnings Ranked Near the Bottom of Major Occupation Groups in 1992 .....	6
Rural Development Perspectives .....	23
Rural Development Policy: Responding to Change .....	23
Rural Development Strategies That Work .....	22
Rural Unemployment: Current Conditions and Future Trends .....	31
Skill Upgrading in the US Economy, 1970-2005 .....	25
Soybeans: State-Level Production Costs, Characteristics, and Input Use, 1990 .....	17
State Leadership in Rural Development: The Rationale .....	23
Tests of the Unbiasedness Hypothesis: the Cases of Wheat and Soybeans .....	31
The American Countryside: Rural People and Places .....	25
The Black Land-Grant College System: Shaping Agriculture Past .....	32
The Changing Role of Rural Communities in an Urbanizing World: .....	23
The Future of American Agriculture as Envisioned by Former U.S .....	32
The Impact of Price and Production Costs on Planted Rice Acreage in the United States .....	16
The Mythical Skills Shortage .....	26
The United States Department of Agriculture and Its Leaders .....	32
Toward an Understanding of Multicommunity Collaboration .....	22
Trade Within Asia Is Expanding .....	31
Trade, Policy, and Risk Management: Radical New Policies for the 1995 Farm Bill? .....	9
U.S. Agricultural Update .....	31
U.S. Agriculture Trade Boosts Overall Economy .....	28
U.S. Farm and Farm-Related Employment in 1990: A Significant Source of Jobs in Many Areas .....	11
Understanding State Economies Through Industry Studies .....	22
Wealth Distribution Among U.S. Farm Households .....	15
Why Students (Still) Drop Out of High School: Do Labor Market Incentives Matter? .....	26

**United States**  
**Department of Agriculture**  
1301 New York Avenue, NW  
Washington, DC 20005-4789

---

**OFFICIAL BUSINESS**

Penalty for Private Use, \$300

BULK RATE  
POSTAGE & FEES PAID  
USDA  
PERMIT NO. G-145